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The Future of Housing.

Now that Housing has been unwisely drawn into the area of politics it will be long before it can be treated as entirely a private matter, like any other of the requirements of our daily life. But it is admitted by nearly everyone, even by the leader of the Labour Party, that the Government have utterly failed in dealing with it. Mr. Clynes has stated that he would have preferred Government action to private enterprise, but that its absolute failure has convinced him that the solution of the problem must be by means of enlightened private enterprise. To all appearances the present advisers of the Government have come to the same conclusion, and their problem is to find the shortest and readiest road back to a state of things which was departed from from the date of the war, but for which the way was paved by the Increment Duties of the Finance Act of 1909. It is pertinent to inquire whether there is any policy which, without interfering with private enterprise, would give an impetus to housing, and we believe there are means which would do so, and at the same time possibly relieve the taxpayer either directly or indirectly. We allude in particular to the plan of giving our railway companies powers, which have hitherto been denied them, of acquiring land in the neighbourhood of their lines for purposes of development. It is to the interest of the railways as public carriers to induce people to settle near their stations, while they are exempt from the temporary considerations which often lead to bad and over-hasty development which may prove financially advantageous to the private speculator. Their interest in development would not be purely local, nor would they be inclined to pit one place against another, or to overdevelop one town to the detriment of another. Moreover, if such powers were given them it would be fair to impose conditions and limitations. Inasmuch as the congregation of a considerable population in one place creates the demand for labour, companies might be required that they should, in developing a district, erect a certain definite number of workmen's houses to the satisfaction of the local authority, and it would also be reasonable to ask that a certain proportion of the profits made should be allocated to the reduction of fares on their systems. The main point is that they would be likely to look at the problem from a broad standpoint, and to take longer views than those of the smaller private speculator, while they possess every facility for advertising and bringing their work into prominence. The mere fact that they were interested in housing from a dual standpoint—that of speculators and public carriers—would lead them to consider the customers' interests and to provide for their convenience. It would be easy also to provide that their schemes should go before some public authority like the Ministry of Health for sanction, which would form an additional public security.

Much of our railway legislation in the past has been based on the theory that the railways should be strictly regulated and that the public should be safeguarded against them, but it is somewhat difficult to see why such suspicion should exist as the broad fact remains that without their enterprise the whole fabric of our modern life would be impossible, and the State would be compelled to undertake functions for which it is probably utterly unsuited in this country. In any case high working expenses mean, as we now know, direct claims on the public in the shape of high fares and the reduction of facilities; while the State could at any time insist on the reduction of rates if the railway companies earned unduly high dividends and showed any intention of depriving the public of the *quantum meruit* to which they are entitled where any undertaking has anything in the shape of a monopoly resting on statutory powers.

We believe that any favour shown by Government in the immediate future to builders of houses should take the form of allowing favourable terms to those who will build their own houses, and to large employers of labour who show an active desire to provide for the wants of their workpeople.

Such help as is given in the immediate future in the form of subsidies is sound, because it does not interfere with private enterprise, as the subsidy house is either built by the owner for his own occupation or to rent at an economic rate. It has been urged that the subsidy house does not meet the greatest want, but this seems a fallacy, since smaller subsidy houses often contain less accommodation than that provided in municipal schemes. In any case, it would be possible, by graduating the subsidy, to make it apply to every class of house. Provision for the poorest class, such as are dislodged in slum clearances, is not met by any of the houses contemplated by the Ministry of Health. There is much to be said for a still simpler class of dwelling, in which bath-rooms would not be provided, but their place taken by a large scullery, in which a moveable bath could be used. Something of this kind would probably be found to meet the requirements of some agricultural districts, for which the Ministry of Health's type-plans are somewhat in excess of what would satisfy. We say this because if houses are to be freely provided by private enterprise they must be on lines which do not give the occupants more than the average man or woman finds necessary, since such excess must bear with it a correspondingly increased rental. But this and other difficulties are met by the greater elasticity of the subsidy house as compared with that of the housing carried out by municipalities and other local authorities.

A minor reform in the direction of the elimination of complexity would be to relieve local authorities of the necessity of sending up plans of subsidy houses to the Ministry of Health. The surveyor to each local authority and the council who employed him could, we think, be trusted to exercise all the discretion necessary, if not they are not to be trusted in the matters placed under their care.

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What we should most like to see done when the returns for the new census of requirements are made out is a statement of the amount of housing required in every district, together with an intimation that such shortages may be made good by subsidy houses on the understanding that if such housing is carried out by the local authority, a full economic rent must be charged, so that the cost of housing is entirely covered by the returns produced. By this method all would know where they stood; for the definite provision of a certain capital sum to be expended in subsidies would constitute the only claim on the taxpayer, while its allocation in varying amounts to different localities would make for an even distribution of a national grant. Finally, if each authority were made the final arbiter as to the granting of subsidies in its district, the personnel of the Ministry of Health might be correspondingly reduced. If the local authorities cannot act finally in so simple a matter they cannot be entrusted with the manifold duties which fall to them, and should be eliminated in favour of some other system of administration.

Illustrations.

SKETCH DESIGN FOR LEEDS WAR MEMORIAL. Sir Reginald Blomfield, R.A., Architect. Royal Academy Exhibition, 1921.
THE BROAD STREET NATIONAL BANK, PHILADELPHIA, PA. Paul A. Davis, Architect. (From "Architecture.")
CORN EXCHANGE BANK, BRANCH, 811 LENOX AVENUE, NEW YORK, AND CORN EXCHANGE BANK, BRANCH, 12 WEST 28TH STREET, NEW YORK. S. Edson Gage, Architect. (From "Architecture.")
THE TRENTON BANKING COMPANY, TRENTON, N.J. Dennison & Hirons, Architects. (From "Architecture.")

Notes and Comments.

A Methodist Cathedral.

The "Central News" states that "A cathedral like no other in the world is to be erected by Chicago Methodists at a cost of £875,000 in the heart of the down-town business part of the city. This monument to the centenary of mission work will be a skyscraper twenty-one storeys high, with offices occupying the space not given up to a huge auditorium on the ground floor, and church headquarters above. In the spire will be great chimes which will be loud enough to be heard above the roar of the traffic. The cathedral will be pure French-Gothic in style and American in general construction, combining the grace of mediæval churches with the utility of the modern office building." The above account is an example of the misleading statements often made. As a matter of fact, the building referred to is not a mere church but a composite building of which the church forms a constituent part. Many examples of such buildings could be mentioned; one of them was built years ago in Corporation Street, Birmingham, while the Wesleyan Methodist Hall at Westminster is very nearly analagous. It is, in fact, merely a congregation of buildings connected with a church—connected vertically instead of horizontally.

A Colossal Ceremony.

It is said that the King and Queen of Roumania are to be crowned in a village in Transylvania at the colossal cost of four million sterling. A part of this sum is to be expended on the building of a new cathedral for the occasion. It would seem that in Eastern Europe mediæval customs are still alive, for there is not a great power in the world which would not regard such an expense as beyond reason for any State ceremony. We do not know whether in Transylvania buildings are erected with American rapidity, but, in any case, the building of a cathedral in a year would constitute a record in any land. We are rather afraid that any great building conceived and executed in such a space of time would be one which could not be considered as an architectural monument but rather as a folly. The whole idea is a little absurd, but the account we have read may have been amplified in its passage from Roumania. Possibly the funds expended will be raised by a combination of film producers in a gigantic combine, for they alone in the modern world of straitened means can make good business out of such luxuries.

The Bankrupt Borough of London.

A mandamus has been issued against the Poplar Borough Council, which is practically insolvent and cannot pay the demands made by the London County Council and the Metropolitan Asylums Board. The rateable value of Poplar is low, a 1*d.* rate producing only £3,800, and it is estimated that if the borough were to pay its liabilities a rate of £1 18*s.* 6*d.* in the £ would have to be imposed, which, as Euclid would have said, is absurd. We are afraid that other boroughs, such as Islington, are in a bad way, though the Islington Council, with a cynical disregard of its ratepayers, is promoting a scheme for a huge new Town Hall. We are not sure that when a Metropolitan borough comes to grief in the management of its affairs—as many of them seem likely to—the best remedy would not be to deprive them of their independent Councils, placing them under the direct jurisdiction of the London County Council. In all matters the cost of administration would probably be lessened, while local problems would be dealt with on broader and more general lines.

We have technically made corruption impossible by law, but the door is always open to the mismanagement of small cliques and parties in the smaller units of public life, the results of which may be quite as dangerous as that of the direct bribery and corruption which was freely indulged in in past times. Direct bribery is limited by the command of money; preferential treatment and favouritism cannot be guarded against, and the evil they do may be said to be unlimited.

Housing Conferences.

The National Housing and Town Planning Council send us a notice of eight housing conferences which are to be held under their auspices in different parts of the country, and are to pass resolutions insisting "on the faithful performance of the National Housing Policy," adding that "the honour of the Government is absolutely bound up with the redemption of the pledges given in 1919 with regard to a Housing Policy." We are afraid these gentlemen, like Rip Van Winkle, have been asleep for a considerable time, and have not, therefore, been able to note what has taken place since the famous conference held at Oxford. They have probably never heard that Dr. Addison has not made a pronounced success of the policy with which their hopes are bound up. Do they realise that not even Mr. Clynes now believes in the efficacy of Government action, and looks to private enterprise for the provision of needs? Do they understand that Governments, like private individuals, sometimes change their views as the result of experience? The consideration of these points should lead them to save the time and expense of further conferences, as there are such things as lost causes, and the National Housing and Town Planning Council might remember that the public regard the yearly ceremony which takes place round the statue of Charles I. in Trafalgar Square with amusement rather than more serious thoughts. All that rhetoric can do in the matter of supporting bad finance and useless effort has been done, and all the king's horses and all the king's men cannot reinstate Dr. Addison.

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The R.I.B.A. Conference, Liverpool.

After a lapse of twenty years the first annual conference of the Royal Institute of British Architects was opened by the Lord Mayor on Friday, at Liverpool. The choice of this city for the first conference is undoubtedly a great compliment to the local Architectural Society, which is one of the most active, energetic, and certainly the oldest of all provincial architectural societies. As a town, Liverpool is eminently suited for the purpose, possessing some of the finest examples of classical and modern buildings.

A reception was held in that beautiful building by Wood, of Bath—the Town Hall, the delightful Georgian suite of rooms on the first floor, containing magnificent old furniture, were used for the occasion. After a civic welcome by the Lord Mayor, the conference proper began at the headquarters—the Walker Art Gallery, where an exhibition of students' drawings was held, showing the excellent work done at the University School of Architecture and Department of Civic Designs. H. C. Bradshaw, the first English Rome prize winner, exhibited some of his work; a set of five drawings of the restoration of Sulla's great monument at Praeneste shows his masterly draughtsmanship and imaginative restoration. Among the other drawings, some of the Prix de Rome preliminary competition subjects were on view, and the winning designs for the Lord Leverhulme's annual prize.

The President of the Royal Institute, Mr. John Simpson, read the first paper, on Unification and Registration of the Architectural Profession. This paper briefly outlined the past and present position of the two rival architectural organisations, how their force in the past was dissipated in desultory efforts, and the lack of a single representative headship paralysed all the attempts of the profession to intervene in public affairs with the effect to which it was entitled. The steps of negotiation and conference between the two bodies was briefly traced, and the results clearly stated. Mr. Simpson expressed the opinion that they were on the verge of achieving such a solid organisation of British architects as existed in no other profession in the world. With the large unity must come registration,—which meant the closing of the profession; as soon as the final touches were put to the unification scheme they should get a Registration Bill drafted and push it forward as vigorously as possible. The President remarked that there was no reason why they should not set up a register at once, with their own registrar. It was unfortunate that embittered references were made to the joint signatories of the letter that recently appeared in the technical papers, and that Mr. Cross's name was singled out in particular when he was not present to reply. It was satisfying to hear from the President a faithful promise of an Act of Parliament for registration. It is undeniable that a rumour is very current that unification only is intended by the supreme authorities of the Institute. Unless a Parliamentary Registration Act is passed the whole scheme is useless.

The next paper was a very breezy one, full of distinct personal humour, by Professor Reilly on "Propaganda and Publicity." He explained that it was not at all clear why he had been asked to read a paper on this subject, especially when there were present such recognised experts in these arts as the leaders of the Architectural Association. Not only do they know how to handle the lay as well as the professional Press, but they have recently joined hands with that great backbone of English commerce, the cocoa makers, the soap boilers, and the patent medicine vendors, in openly proclaiming the virtue of their cases by public advertisement. After a continued introduction of this sort, he denounced that propaganda as unnecessary. No one would, for instance, care to be concerned in any organised scheme for proclaiming that our modern architecture was better than that of other countries, or other ages. Propaganda could be left to the market-place; but that did not mean that nothing could be done to educate the public as to what was good architecture, so that those might benefit who were fit to do so. When new buildings are put up in our towns, there is no one to tell them whether they are good or bad, the technical Press seems to be afraid to tackle the task, and the lay Press too ignorant; new pictures and sculpture are criticised, but architecture is fought shy of. The educated layman would be ashamed to have no views about painting, music, or drama, but he is quite prepared to fall back on his likes and dislikes when it comes to architecture. Professor Reilly suggested that architects themselves should publish in the lay Press a reasoned criticism of prominent new buildings, and annual exhibitions of current work would at least create public interest. He made a final suggestion, a very old one, but one which, while it flourished in France and America, had not been adopted in this country. It was that the profession in each centre should annually crown the building which is considered the best erected during the year.

Professor Reilly's paper ended the morning programme; after lunch the members of the conference spent a pleasant afternoon at Planter's Factory, a margarine works, unfortunately not working at the time, and Port Sunlight, where they were entertained by Messrs. Lever Bros. Ltd.

In the evening the official dinner was held at the Midland Adelphi Hotel, when the President presided over a large gathering.

The Lord Mayor proposed a toast to the Royal Institute and the Liverpool Architectural Society. He spoke of the splendid work of the School of Architecture, expressing the hope that when financial conditions became less oppressive the Corporation would be able to enlarge its annual contribution to the School. The President in responding, said that Liverpool had a right to be proud of the high place which it held among the municipalities of Great Britain. In St. George's Hall it possessed a noble legacy, and he hoped that the present directors of the municipality would take care to see that the surroundings were kept in accordance with its stately dignity. Mention was made of the wonderful cathedral which was now being erected, the magnificent group of commercial buildings at the Pierhead, and the fine hotel in which the dinner was being held.

Mr. H. T. Buckland, in proposing a toast to the guests, suggested that British municipalities should follow the American example and appoint art commissions, composed of men who are qualified by special training to advise them in the choice of designs of all important buildings and public improvements. It is obvious that a great many opportunities of improving the beauty of our cities were lost through the absence of the experienced counsel which such a commission could offer.

Speeches were made by the Vice-Chancellor of the University (Dr. Adami), Mr. Stuart Deacon, and Professor Mair. The latter remarked that, while the painter and the sculptor usually exhibited their work in galleries, which no man need visit unless he wished, the architect displayed his work in the public street where everybody must see it. There were many pieces of architecture which amounted to a breach of the peace, and he doubted whether their designers were entitled to the protection which the law generously gave them. The creator of a bad building, offensive to the eye, should be liable to prosecution in the same way as the man who annoyed and depressed his neighbours by creating a disagreeable noise.

A paper by Mr. H. D. Searles-Wood, F.R.I.B.A., on Building Contracts, reopened the conference on Saturday morning; in the author's absence the paper was read by Mr. T. D. Rees. The paper itself seemed to be nineteen-twentieths quotations, and was altogether unsuitable for a hot day; no discussion followed.

Mr. L. B. Budden's paper on Architectural Education rekindled the interest, and great enthusiasm was shown by various speakers. The chief points were:—What are the subjects which an architect is required to know? in what way should they be taught? and under

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what conditions? A strong point was made with regard to the superseding of the old pupilage system by scholastic training in architecture. Mr. Budden maintained that the universities alone possessed the means to satisfy the whole claims of architectural education. Those claims were not technical, they were moral also, and it was only fitting that the courses outlined in the paper should be crowned by an academic degree.

The most eagerly discussed paper of the day was that on "Official Architecture," by Mr. Maurice E. Webb, M.A., F.R.I.B.A. The history of the Office of Works, together with a description of its objects, was briefly given. Facts and figures of the number of staff and the salary list, clearly show a tendency to officialise architecture, increasing Government departments and public bodies, to entrust the designing of public buildings to official architects.

In the afternoon a visit was paid to the Cathedral, where an inspection was made of the Lady Chapel and the works in progress, under the guidance of the architect, Mr. Gilbert Scott. Following this they visited the Cunard Building, and after being entertained to tea at the Britannia Café by Messrs. Willink and Thicknesse, the architects of the building, completed the day with an enjoyable river trip on the White Star Company's tender, the Magnetic.

Correspondence.

The Liverpool Conference.

To the Editor of THE ARCHITECT.

SIR,—I passed on to the R.I.B.A. an inquiry on behalf of some Liverpool members of the Society of Architects who wished to attend the Conference and was informed that it was limited to members of the R.I.B.A. and its allied societies. It is announced in the Press that the invitation was extended also to members of the Architectural Association, and if it could have been stretched just a little further to include members of other non-allied architectural bodies, it would have been a graceful act and one consistent with the tentative proposals of the R.I.B.A. for Unification.—Yours, &c., C. MCARTHUR BUTLER, Secretary.

The Society of Architects,
28 Bedford Square, London, W.C. 1.
June 24, 1921.

"The Architect" Fifty Years Ago.

JULY 1, 1871.

UNWHOLESOME DWELLINGS.

IT will be remembered that, in our last issue, we called attention to the unwholesome dwellings of the poor, and expressed a strong opinion that the best way to elevate the masses was to provide them first of all with better houses in which to live. We also concurred with Earl Derby in his opinion that the construction of such buildings would be remunerative. One of the companies already formed for this purpose—the Metropolitan Association for Improved Dwellings—held its annual meeting last week at the offices, Finsbury Circus; the Hon. D. F. Fortescue, M.P., in the chair. The Chairman, in moving the adoption of the report, congratulated the shareholders on the satisfactory position of the Association, and the very gratifying effect produced on the well-being of their tenants. Their dividends had increased gradually from 1 per cent. to 1½ per cent., 2 per cent., 2½ per cent., 3 per cent., 3½ per cent., 4 per cent., and for the two past years they were at the rate of 4½ per cent. per annum. Those who remembered the difficulties of the Association had encountered would consider that a satisfactory return on their outlay.

THE Royal Institute of British Architects held an afternoon reception at the Zoological Gardens, Regent's Park, N.W., on Tuesday last, June 28, Peace Commemoration Day. Members and guests were received by the President and Council in the spacious library of the Zoological Society. The great lawn and Fellows' tea enclosure were also reserved on their behalf, and made ideal gathering-places for a series of informal reunions during tea and while listening to the band of the Irish Guards. Favoured by ideal weather, and with the news that the coal strike had been settled, the reception was well attended and proved an unqualified success.

Royal Institute of British Architects.

THE following notes are taken from the minutes of the Council meeting on June 20:

Allied Societies.—The Council admitted to alliance with the Royal Institute under By-law 78 the newly-formed Berks, Bucks, and Oxon Architectural Association, and approved of certain amendments to the rules of the Northern Architectural Association.

The Archibald Dawnay Bequest.—The Council approved a scheme for the annual award of two "Archibald Dawnay Scholarships" of £50 a year each for two years and one of £25 a year for two years (a total yearly expenditure of £250) for candidates who have been through the three years' course at a "recognised school." The scholarships will be awarded for excellence in construction and with the idea that the money should be used towards assisting the holders in the further study of construction. Candidates will be nominated by the schools, and the selection will be made by the Board of Architectural Education, if possible without demanding the attendance of provincial candidates in London. The selection will be based largely on the actual school work of the candidates. The second year's enjoyment of the scholarships will be subject to the approval or veto of the Board.

Technical Lectures at the R.I.B.A.—The Council authorised the arrangement by the Literature Standing Committee of a series of technical lectures to be held during the month of November and the first fortnight of December 1921 in the R.I.B.A. Galleries.

The University of Sheffield.—Mr. J. A. Gotch was re-elected to represent the R.I.B.A. on the Court of Governors of the University of Sheffield.

The Professional Classes Aid Council.—Mr. George Hubbard was appointed to represent the R.I.B.A. on this Council.

Duration of the Session.—Under By-law 57 the duration of the Session was extended to July 31, 1921.

The Royal Commission on Fire Prevention.—The Building Act Committee was authorised to co-opt additional members representing London and the provinces and to arrange for the furnishing of evidence to the Royal Commission on Fire Prevention.

The Fellowship.—Under the provisions of By-law 12 Mr. Ralph Knott was unanimously elected a Fellow of the Royal Institute.

Wooden Houses and the Government Subsidy.—A protest was sent to the Ministry of Health against the subsidising of houses built of unseasoned wood.

Forthcoming Events.

Saturday, July 2.—St. Paul's Ecclesiological Society.—Visit to East Ham Old Church and Little Ilford Church. Members meet at East Ham Station (District Railway) at 2.30 P.M.

Monday, July 4.—Royal Institute of British Architects.—Special general meeting at 9 Conduit Street, W., to consider "Architects' Fees in State-aided Housing Schemes." 8 P.M.

Wednesday, July 6.—Royal Archæological Institute.—Meeting in the apartments of the Society of Antiquaries, Burlington House, W. Paper by Mr. F. C. Eeles entitled "The Ancient Glass of Westminster Abbey." 4.30 P.M.

Thursday, July 7.—Surveyors' Institution.—Annual country meeting at Norwich (two days).

Friday, July 8.—Town Planning Institute.—Seventh annual meeting at 92 Victoria Street, Westminster, S.W. Paper by Prof. Patrick Geddes entitled "City Survey and Design as Policy and Theory of Town Planning." 5.30 P.M.

A NUMBER of colour drawings by Professor E. Tyrrell-Green are being shown this week at 72 New Bond Street, W. The majority are of architectural subjects seen on travels in many parts of Europe, and a few of them have been reproduced in our columns as illustrations to articles by this versatile cleric. They are straightforward, unpretentious sketches such as would serve as invaluable memoranda for a mind keenly appreciative of architectural form. Professor Tyrrell-Green has an alert eye also for beauty of land, sea, and atmosphere, and is courageous enough to attempt to communicate pictorially his impressions.

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Silesia's Wooden Churches.

By Cyril G. E. Bunt.



St. Anna, Rosenberg.

That fateful triangle wedged between Poland, Germany and Czecho-slovakia, is, to most of us almost an unknown land. To the politician it is merely the Plebiscite Area, meaning mines and manufactures for (or not for) Germany. But as a matter of fact it is one of the most fertile provinces possessed by pre-war Prussia. Beyond its great industrial centres it is a land of forest-clad hills and fertile valleys, with numerous small streams finding their pleasant ways to feed its chief river, the Oder.

The timber lands of to-day are but the shrunken remnants of dense forests which covered the province when, in the tenth century, immigrant Slavic tribes first made it their home. Possessing a native skill in timber construction and finding abundant material to their hands, these tribes may be said to have originated the wooden architecture which, even to this day, persists in the rural districts.

In the quiet, out-of-the-way villages not only the homes but even the churches are of wood. Over a hundred and seventy such churches still exist in Upper Silesia alone, and many more have fallen into ruins, being superseded by buildings of brick or stone. In some few cases, as for example at Mikultschütz, a very praiseworthy sentiment has allowed the old-world building to stand side by side with the new.

One cannot but be struck with the homely beauty of these churches. There is an eternal fitness about them which appeals strongly to the lover of quaint and curious things. They exhibit the naive spirit of simple contentment with primitive conditions of life. They exemplify, as nothing else could do, their makers' appreciation of the dignity inherent in the work of their own hands.

Nestling, half hidden, among the trees, surrounded by low-walled graveyards,—haunts of peace and quiet, eternal rest,—one feels that they are part and parcel of this Silesian land.

They are mostly built of simple logs laid one upon another, block-house fashion, with a stone foundation. But planking is not infrequently employed, especially in the upper fabric, which adds a pleasing diversity to the surface. Quaint little windows break the wall spaces here and there, and a feature of many is the covered gallery outside, with steps leading up to an open, roofed balcony. The roofs, with picturesque, weather-worn shingles, dip at varying angles, with a slight and graceful sag. They lend each church an individuality. Some slope sharply and reach almost to the ground, others are more normal, while nearly all are diversified by roofing at various heights, giving divers planes on which the sunshine breaks with charm of light and shade.

Plain and homely as are most of these little churches here and there one is found that is decorated with excellent carving. One such is that at Lubour, near Ratibor.

Of those existing at the present day none is perhaps more than about four centuries old, the majority being of eighteenth century origin. But of the sixteenth century the oldest are Pniow (1506), Syrin (1510), Uschutz and Chechlau (1517). The churches of earlier times differed but little from the ordinary dwelling house, and one sees in the ground plan of some the traditional form continued. Many now are cruciform although most conform to the old *Bauernhaus* plan. A fine example, however, which is unique, is the pilgrim church of St. Anna, at Rosenberg—a place recently occupied by British troops. Its "nave" is hexagonal and from five of its facets chapels project. The remaining side gives on to a transept and a transverse entrance hall dating from the sixteenth century. Its plan has been likened to a rose, and is said to symbolise the arms of Rosenberg—a rose.

The curious conglomeration of angles and protruding walls is very pleasing. It would be hard indeed to imagine anything more quaintly picturesque. The nearest approach perhaps in effect would be a group of farm buildings in rural England.

An excellent piece of old timber work that reminds one likewise of our own land is a spacious lych-gate, with seats, at the entrance to Burgsdorf churchyard.

The interior of these churches is no less full of interest. Most are decorated in the ornate barock style so favoured in the churches of that part of Europe. But the older ones were originally decorated with old wall paintings now mostly improved away unfortunately. The churches of Chechlau and Pniow, however, have still preserved some fine sixteenth-century paintings.

Most of these log-built churches are still consecrated to God's service, and the bell that calls the faithful together hangs in the belfry which forms a characteristic feature. For nearly always it stands isolated from the church, as in Russia, and is in form not unlike an old windmill minus the sails. The top portion projects somewhat beyond the walls which narrow towards the summit.

These simple churches satisfy completely the devout natures of the peasants, and will doubtless continue to satisfy their descendants for many a year to come. And, after all, what so appropriate? They are the natural product of the soil of these quiet Silesian valleys just as truly as the living woods from which their fabric has been fashioned.

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Studies of the English Sculptors from Pierce to Chantrey.

I.—Introductory.

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Now that the Walpole Society, by the publication of their magnificent work on Nicholas Stone, has at last turned public attention to the subject of English sculpture, the time seems ripe for a fresh account of the life and works of the more prominent English sculptors, his successors. The literature of the subject is still curiously inadequate. We have Walpole's account, in most cases tantalisingly brief, in the "Anecdotes of Painting in England" as edited by Dallaway and Wornum; we have J. T. Smith's lives of a certain number appended to "Nollekens and his Times," now at last excellently edited by Mr. Wilfred Whitten, as well as numerous references in his other works; we have Mr. Faber's study of Cibber, in Danish, the precursor of a larger work; we have Mr. Gosse's brief essay prefixed to his edition of the same classic (1895); and—to return to chronological order—we have a ludicrous and bulky life of John Bacon, the nine biographies given by Allan Cunningham in his "Lives of the Most Eminent British Painters, Sculptors, and Architects," and no fewer than three lives of Sir Francis Chantrey. Mr. Avray Tipping has for the first time enabled us to study the work of Grinling Gibbons with the aid of superb photographs. Finally, a boon for which all students of the subject are deeply grateful, we have Mr. Beresford Chancellor's "Lives of the British Sculptors," the only important modern work, which is a storehouse of facts relating to sculpture in England from the thirteenth century onwards; and a single pleasant biography, that of Mrs. Damer, by Mr. Percy Noble. Mr. Beresford Chancellor, however, does not draw upon Vertue's MSS. in the British Museum, nor M. Le Roy de Ste. Croix's life of Roubiliac, a very scarce little book published at Paris in 1882, only recently acquired by the British Museum, though he mentions that author's monograph upon Grinling Gibbons; nor, apparently, upon the considerable amount of interesting matter relating to that sculptor in Northcote's "Conversations," not to speak of the mass of floating anecdote and studio tradition in W. H. Pyne's "Wine and Walnuts," which, if not literally true, is at least approximately so.

The connection of this later sculpture with literary tradition is indeed hardly yet realised, and herein it differs profoundly from English sculpture of an earlier age, the identity of whose sculptors is usually either unknown or shadowy to the last degree. Quite apart, therefore, from the practical convenience of taking such a date as the Restoration as our starting-point, there is a certain unity of effect to be obtained from the constant contact with literature and literary men which is characteristic of nearly all eighteenth-century sculpture, and of such seventeenth-century names as Gibbons and Cibber. Further, it was only with the Restoration that the full impact of later Renaissance sculpture was felt in England. Bernini's influence in France was immense, and through the Court intercourse with France during the reign of Charles I. and the exile and restoration of Charles II., his influence in England became very marked. When Lady Jane Cheyne died in 1669, for instance, it was to Paolo Bernini, his greater father being perhaps too busy to undertake the commission, that the family turned to find a sculptor for her monument, and Bernini's son designed, and Antonio Raggi executed, the large monument to that great lady and benefactress of Chelsea, on the north wall of Chelsea Old Church, close to the superb dramatic figure of Sara Colvile, an English masterpiece of 1631. Sculptors of the previous generation, too, such as Fanelli, to whose powers too little justice has been done, and Stone himself, who has left on record his conversations with the master, were strongly influenced by Bernini, as witness the former's admirable bust of Sir Robert Ayton in Westminster Abbey, and the recent publication of the Walpole Society. Within our period Bird, of whom we shall have much to say, worked for a time under the sculptor, and Bird's "pupil," Edward Pierce, went further towards capturing the unique and living power of his portrait-busts than any other English artist. Cibber again is believed to have been influenced by him during his stay in Rome; Rysbrack copied his Charles I.; Roubiliac found his work a revelation; in short, the influence of Bernini upon English sculpture is a force that has never been sufficiently reckoned with, both on its dramatic side and in its consummate portrayal of character in portrait-busts and statues. The pure classical tradition in England is on the whole a later thing, though traces of it may be found, before Wilton and Banks, in and not least in the figures recalling nymphs and muses on Stone's monument to Bodley in Merton Chapel. Of the more strictly English tradition there are abundant traces derived from the alabaster school of the sixteenth and seventeenth centuries in much of the work designed by Gibbs, and carried out by such sculptors as Rysbrack and Scheemakers. It is the aim of this series of studies to emphasise the style of our sculptors as well as to give an account of their lives and works, and it is hoped that the attempt to provide the student with a considered picture of the main developments of later English sculpture may be of real value to those who, now that the whirligig of time has brought in its revenges, and Gothic art is no longer deemed of exclusive interest, would be glad to know something of the history of an art then even more than now, owing to the relative position of architects and sculptors, closely allied with architecture. Some of those, indeed, with whom we have to deal were actually architects, Cibber for example; and in any case there is a special appropriateness in their appearance in an architectural paper; since, as Cunningham forcibly wrote nearly a century ago, "In England our architects long preserved their ascendancy, and as late as the middle of last century dictated to sculptors with a boldness of which we have no notion nowadays, and which most probably was only tolerated then because our figure-makers were poor, friendless foreigners." It is, indeed, sometimes a real difficulty in the case of joint authorship to know under what name to put a monument, whether under that of the designer or that of the actual sculptor; but since the Cheyne monument already alluded to is always cited under the name of its designer Bernini, rather than its sculptor Raggi, it seems better on the whole to class a work under the name of the designer rather than that of the actual sculptor, except in a few cases such as the Shakespeare and Newcastle monuments in Westminster Abbey, which were, indeed, designed by Kent, but were entirely executed by Scheemakers. Our work is bound to be imperfect, and acknowledges the fact. There are churches and chantries all over England which are museums of sculpture, often of the highest class. Hence it is impossible to give lists of sculptors' work with any approach to completeness, but those here given will be found in every case to add something, and in some cases a good deal, to our knowledge of the sculptors. A personal visit to such churches as those at Exton (Rutland) and Chenies (Bucks) will do more than any description can to reveal the wealth of beauty and interest that await the inquirer, except a visit—if made without preconceived objection to the monuments as "spoiling the building"—to Westminster Abbey, which in art as in so much besides, is an epitome of national life and art. But three great London museums of sculpture were lost when Old St. Paul's and the original Exchange were destroyed in the Fire of London, and the second Exchange, "adorned not only with the statues of our kings, like the former Exchange, but likewise with two of Sir Thomas Gresham, are placed under the south arch facing Cornhill, made in 1671 by the famous Mr. Bushnell . . . and the other erected in the west walk of the piazza, where the old one stood before the Fire" (MS. appendix to Ward's "History of Gresham College" in the British Museum) was burnt down in the

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disastrous fire of 1838. These statues, as another of Ward's MS. notes states, represented "all the Kings and Queens from Edward the Confessor to Charles the Second," and their loss is an irreparable damage to our knowledge of seventeenth-century art. More will be said of them when we come to Cibber and Bushnell, both of whom were largely concerned in the decoration of this second Royal Exchange. The average church destroyed by the Fire was probably not so rich in monuments as St. Helen's, Bishopsgate, but here again the loss of mediæval sculpture and sixteenth-century tombs is very heavy.

One last word as to our sources. It is perhaps natural, but certainly thrice fortunate, that two of our main sources of information as to English sculpture—the works of J. T. Smith and Allan Cunningham—are derived from men who themselves lived and worked in the studios of English sculptors. Nollekens and Chantrey were full of information as to the history of sculpture and sculptors in England, and their disciples being of a literary turn, found pleasure in noting down such traditions as they heard. Smith, moreover, was the son of a sculptor, Nollekens' chief assistant in fact, and formerly an assistant of Roubiliac, and we can hardly be too grateful for the fact that, for once, the time and the place and the loved subject came together, and that these men thought it worth while to gather up the traditions of their craft, which but for them must have been hopelessly lost, for the amusement and information of posterity.

(*To be continued.*)

Competition News.

THE Dunoon and Cowal District War Memorial Committee are prepared to receive designs for memorial to be erected in Dunoon on site at Castle Gardens. The total cost of memorial is not to exceed £2,000. Designs to be lodged not later than July 30 with Mr. J. Valrose Clery, Hon. Secretary, Clydesdale Bank Buildings, Dunoon.

THE Executive Committee of Buckie Fallen Heroes' Memorial offers a prize of £10 10*s*. for the most suitable plans and estimates for adapting a portion of the building presently known as the Cluny Hotel to the purposes of (1) A memorial to fallen heroes; (2) Accommodation for club rooms for ex-Service men. If the successful competitor is employed as architect for the work, the prize will be merged in his fees as architect. Further particulars can be obtained from Mr. John L. M'Naughton, Town Clerk, Buckie, with whom plans and estimates must be lodged by July 22.

THE R.I.B.A. Council have lent the Institute Galleries for an exhibition of the competition designs for the extension of the Willesden Hospital as Willesden's War Memorial. Mr. Edwin T. Hall, F.R.I.B.A., acted as assessor on the nomination of Mr. John W. Simpson, P.R.I.B.A., and seven architects submitted designs. The premiums were awarded as follows: First, Messrs. Greenaway & Newberry, £105; second, Mr. A. Saxon Snell, £52 10*s*.; Honorariums of £20 each to Messrs. Forsyth & Maule, Messrs. Ashley & Newman, Mr. W. Marchment, Messrs. Murrell & Piggott, and Messrs. Newman & Newman. The drawings will be on view from July 11 to 18 inclusive.

AT the Walker Art Gallery, Liverpool, an exhibition is being held this week of architectural drawings (including Rome and other scholarship drawings) by members of the School of Architecture, University of Liverpool. The exhibition will be continued until Saturday, July 2, and is free to the public between the hours of 10 A.M. and 6 P.M.

AT the meeting of the President of the Royal Institute of British Architects with the Associates on June 7, when the steps proposed to be taken towards the Unification of the Profession were discussed, it was decided, with a view to assisting the Unification Committee in its work, and in order to ascertain more definitely the views of Associates, to appoint a committee consisting of ten members, with power to add to their number. The following Associates were forthwith elected to the Committee—viz., Messrs. W. R. Davidge, Horace Cubitt, K. Gammell, G. L. Elkington, J. Douglas Scott, Herbert A. Welch, E. Stanley Hamp, A. W. Sheppard, L. H. Bucknell, and H. G. Fisher. The following Associates have since been co-opted: Messrs. S. H. Loweth, Michael Waterhouse, and P. W. Hubbard.

The Art of the Theatre.

AN exhibition has been arranged by the Department of Engraving, Illustration and Design, in Room 70 of the Victoria and Albert Museum, showing models and drawings to illustrate the art of the theatre in past and modern times, from the designing of stage scenery and costume to the advertisement poster.

A fine set of drawings shows the work of Ferdinand Galli, called Bibiena (1657-1743), one of the early masters in the making of architectural designs for pageantry and the stage. A still earlier drawing is a remarkable design for a Pageant by Hans Burgkmaier (1473-1531), showing two knights in full armour on caparisoned horses. By Gaetano Gandolfi (1734-1802), is a drawing of the Fountain of Neptune at Bologna, showing a street crowd watching a puppet show of the Punch-and-Judy type. Some Italian costume drawings of the early nineteenth century lead the way to the later revival, exemplified in England by the work of Charles Kean, who was one of the first to pay any real attention to the mounting of his plays from the archæological or antiquarian point of view.

There is space to exhibit a few only of the four hundred water-colour drawings of stage scenery and properties commissioned by Kean as a record of plays produced during his lease of the Princess's Theatre from 1850-1859. They were presented to the Museum by Mrs. Paget, Kean's niece, in 1902. It was in Kean's revival of "The Winter's Tale," in 1856, that Ellen Terry made her first appearance at the age of eight, as Mamellius, appearing again during the same year as Puck in "A Midsummer Night's Dream." With the drawings is an autograph letter of condolence written by Queen Victoria to Kean's widow in 1868, saying "I know from sad experience how to appreciate the loss of a beloved husband who was the *object* of your existence. Life is a blank after such a loss, and the sunshine of it is *for ever* gone."

A more modern, more selective, outlook is shown in later work, with Walter Crane as a pioneer in his costume designs for the "Snow Man," produced at the Lyceum Theatre in December 1899. Some costume and poster designs made for Miss Lillah McCarthy's production of "A Winter's Tale" at the Savoy Theatre in 1912 are the work of Mr. Albert Rutherston. A working model for a bazaar scene in "Allah's Orchard" was presented by permission of Miss Violet Vanbrugh; and a printed note by Mr. William Stewart, the designer of this scene, describes how stage scenery is planned and made. A more pathetic interest attaches to the brilliant work of Mr. C. Lovat Fraser, who died on June 18. Among the exhibits are some of his costume and poster designs, and his original sketch, with the working model, of the scenery which he designed for "The Beggar's Opera," produced at the Lyric Theatre, Hammersmith, in 1920. The model was presented by Messrs. Nigel Playfair, Arnold Bennett, and Alastair Tayler, the directors of the Lyric Theatre. Another exhibit is his design, presented by Madame Karsavina, for a doorway in the ballet, "Nursery Rhymes," produced at the Coliseum in January last.

Among other exhibits are a stage design by Nicholas K. Roerich for the scene in Diagilev's ballet in "Prince Igor"; a water-colour drawing by Claude Shepperson, A.R.A., of a scene in "Le Mariage de Figaro"; some mezzotints showing scenes in which Garrick, Mrs. Cibber and other famous actors and actresses of the past played a part; and a group of modern posters.

MR. C. J. MCCARTHY, city architect, of Dublin, is retiring from that position, which he has held for many years.

THE Dublin Corporation has decided to spend up to £1,000 in the employment of an engineer of undoubted standing and ability to report on the power possibilities of the River Liffey for the supply of electric power and light.

THE late Mr. William Godson, J.P., of Brondesbury, N.W., a member of the Middlesex County Council since 1905, and managing director of G. Godson & Sons, builders, Kilburn Lane, has left estate valued at £38,399.

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Annual Convention of Scottish Architects.

THE fifth annual convention under the auspices of the Institute of Scottish Architects was held in the Art Galleries, Dundee, on June 21, when a number of members of the profession from the different Scottish centres assembled under the chairmanship of Mr. Alexander N. Paterson, M.A., A.R.S.A., F.R.I.B.A., of Glasgow, to participate in the proceedings. Such centres as Glasgow, Edinburgh, Aberdeen and Dundee, were all well represented, and it was only the difficulty of railway travelling during the coal crisis which prevented many of the architects in the smaller and more distant towns from attending the meeting.

At the outset of the proceedings a civic welcome was offered to the Institute by Lord Provost Spence on behalf of the Dundee Town Council. In doing so the civic chief of Dundee said there was no doubt architects was connected with a very important calling, and that it was within their power to do much good in improving the amenities of the different cities. It was to architects they looked to see that no monstrosities were erected in their different towns and cities, and he felt sure that the members of the Scottish Institute were not forgetful of that fact. At present all communities were busy with house-building schemes, but unfortunately this work was proving very costly. However, it was essential that the people must be properly housed, and perhaps with the best brains of the architectural profession gathered together that afternoon they might be able to evolve some scheme whereby the cost might be lessened. The Ministry of Health and other Government bodies were now coming to realise that there was something in national economy after all.

In acknowledging the warm welcome offered by the Lord Provost, Mr. A. N. Paterson took the opportunity of complimenting the city of Dundee on being in the forefront of the housing movement under the able direction of its city architect, Mr. James Thomson. As far as the Provost's remarks regarding building costs were concerned he (Mr. Paterson) was sure no body would welcome more a lessening of the present impossible prices, unfortunately the remedy lay without their power unless the Institute could have the guiding of the trade unions and the consciences of the British working man. He was afraid, therefore, that the position was likely to remain hopeless until these two things were definitely guided. In conclusion, Mr. Paterson thanked the Provost for his references to the work done by those connected with the architectural profession, and he expressed the hope that it would not be the last visit of the Scottish Institute to Dundee.

An interesting summary of the year's work was offered in the annual report as submitted by the Secretary (Mr. W. Glassford Walker, C.A.) on behalf of the Council. This stated that the various meetings which the Council had held during the past year had all been excellently attended, and that each of the chapters were well represented in proportion to the number of their delegates. Reference was also made to the presentation bust in bronze of the late Sir R. Rowand Anderson as executed by Dr. Pittendrich Macgillivray, and it was stated that this work was nearing completion and promised to be an excellent likeness of this great Scottish architect. During the past year there had been admitted to membership thirty-nine Fellows, thirty-seven Associates, and sixteen students—or an all-round increase of ninety-two new members—and the total number on the rôle now stood at 542. The steady increase in the membership from year to year since the inauguration of the Institute was regarded by the Council as a very gratifying indication of its importance to the profession in Scotland, and the Institute could now claim to be really representative—especially as regards the principal centres. It was hoped that further progress in the direction of getting all architects affiliated to the Institute would be made during the coming session.

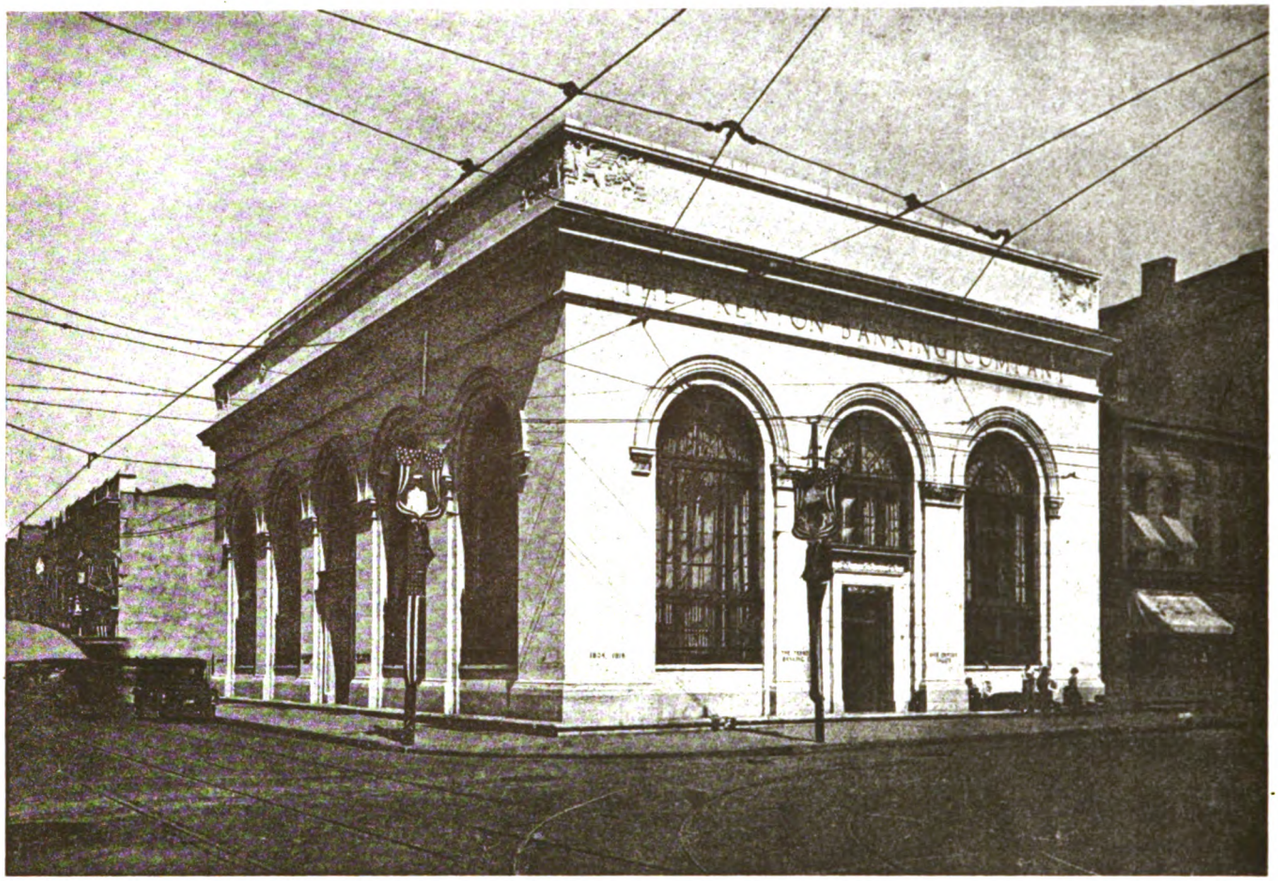
The annual election of office-bearers followed, when Mr. Paterson was unanimously re-appointed for another year as President of the Institute. In thanking the members for this honour, Mr. Paterson said that he was greatly animated and encouraged by this renewed vote of confidence on the part of the members, and he would do his best to fulfil his duties during the coming year as far as lay within his power. He next proceeded to give his presidential address, and this he opened with the observation that the members were meeting together for the first time since the death of Sir Rowand Anderson. It had commonly been remarked of Sir Rowand that his force of character, his breadth of view, and his determination of spirit—together with his powerful constitution—would have made him great in whatever sphere of life his work had lain. As a lawyer he would have lent weight and dignity to the bench; as a soldier the field-marshal's baton would certainly have been in his knapsack and not remained there; as a surgeon or physician he would have been famous as an operator and consultant; while as a churchman he would have graced a bishop's throne or the moderator's chair.

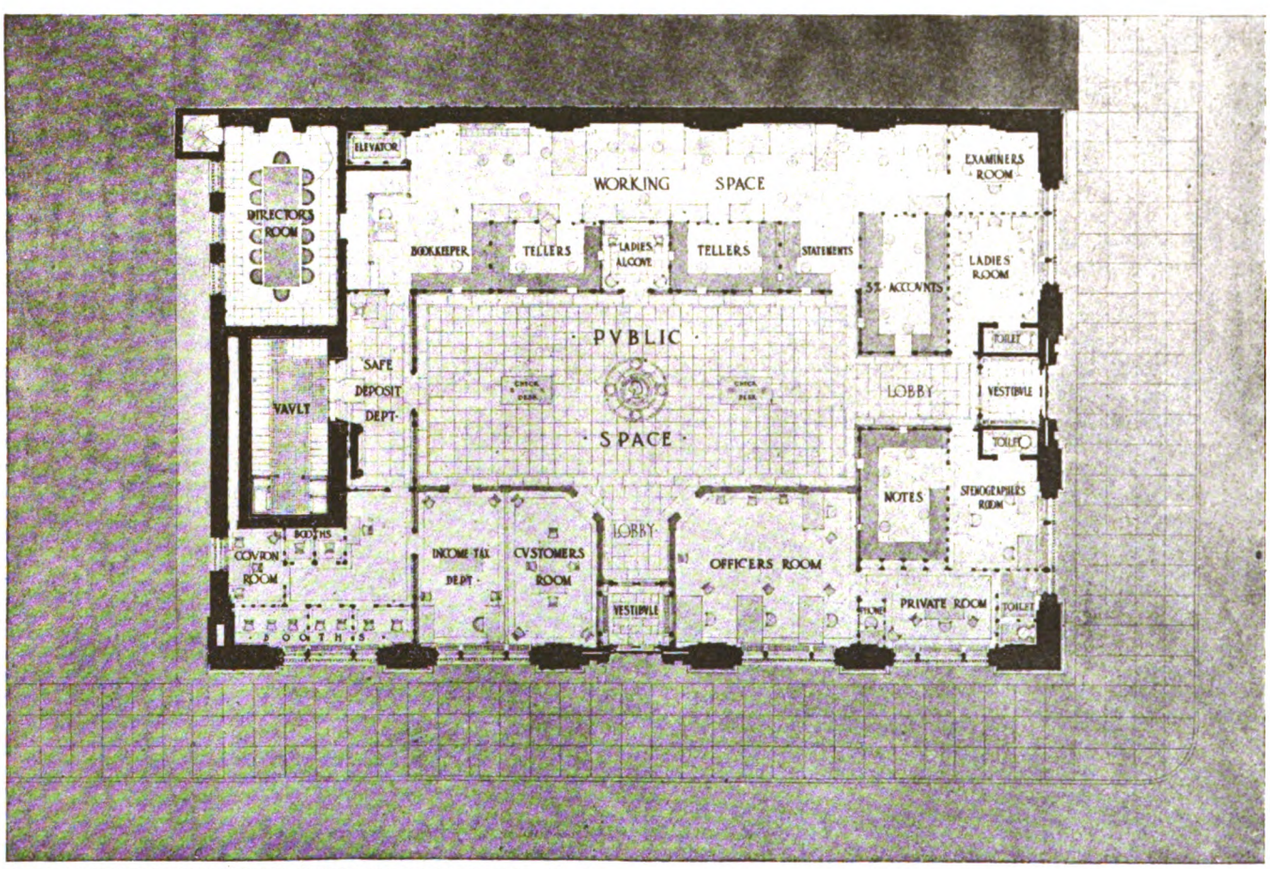
"But while all these various offices have no doubt their various uses," continued Mr. Alexander Paterson, "I make bold to say that as a great architect Sir Rowand's life and work were of more value to Scotland than had they been spent in any one of them, and we have therefore cause for thankfulness that as a youth he was permitted to follow his natural bent and to early transfer from the lawyer's desk to the drawing-board. . . . As a great Scot we honoured him; as a great educationalist we also honoured him; but most of all we honoured him as a great architect. It is needless for me in a gathering of Scottish architects to enumerate the many buildings erected to Sir Rowand's design, and restored under his direction in all parts of the country. He had great opportunities not only in the importance of the commissions entrusted to him, but also in their variety—for in no sense was he a specialist either as regards the nature or the purpose of the buildings undertaken or the particular styles of architecture employed for any one of these as being best fitted to express his ideas. Thus, while in his churches he expressed himself in Norman or early or late Gothic (though never in the purely English Perpendicular), his Medical Schools and Conservative Club were early Italian, his Caledonian Railway buildings and Mount Stuart were French Renaissance, his National Portrait Gallery was French Gothic, and his houses were Scottish domestic."

In the further course of his observations Mr. Paterson recalled how Sir Rowand Anderson had satisfied a life's ambition by being the originator of the Institute of Scottish Architects, and how naturally he was elected as their first President at the advanced age of eighty-two years. But even at that age (even although bodily infirmity was beginning to tell) that brought no curbing of the spirit. A purely Scottish society which would incorporate the scattered and independent bodies already existing in the principal centres, and which would combine their efforts for the general advancement of architecture—such was in outline the project which had already occupied his thoughts for some time. During the first session of the Institute's career Sir Rowand regularly occupied the chair; while he presided at the opening of the first annual convention held in Edinburgh in the summer of 1917. Since then, until his death, he continued on the Council, taking an active part in its work, and, withal, its committees, and how large a part the Institute occupied in his last thoughts was shown by the provisions regarding it in his will. By his will he had left to the Institute his beautiful house at Rutland Square to be used as its permanent home; that it might better serve that purpose from a social aspect he had added much fine furniture from his other house at Colinton, with silverplate and cutlery included; educationally he had also greatly enriched the Institute and the profession by the further

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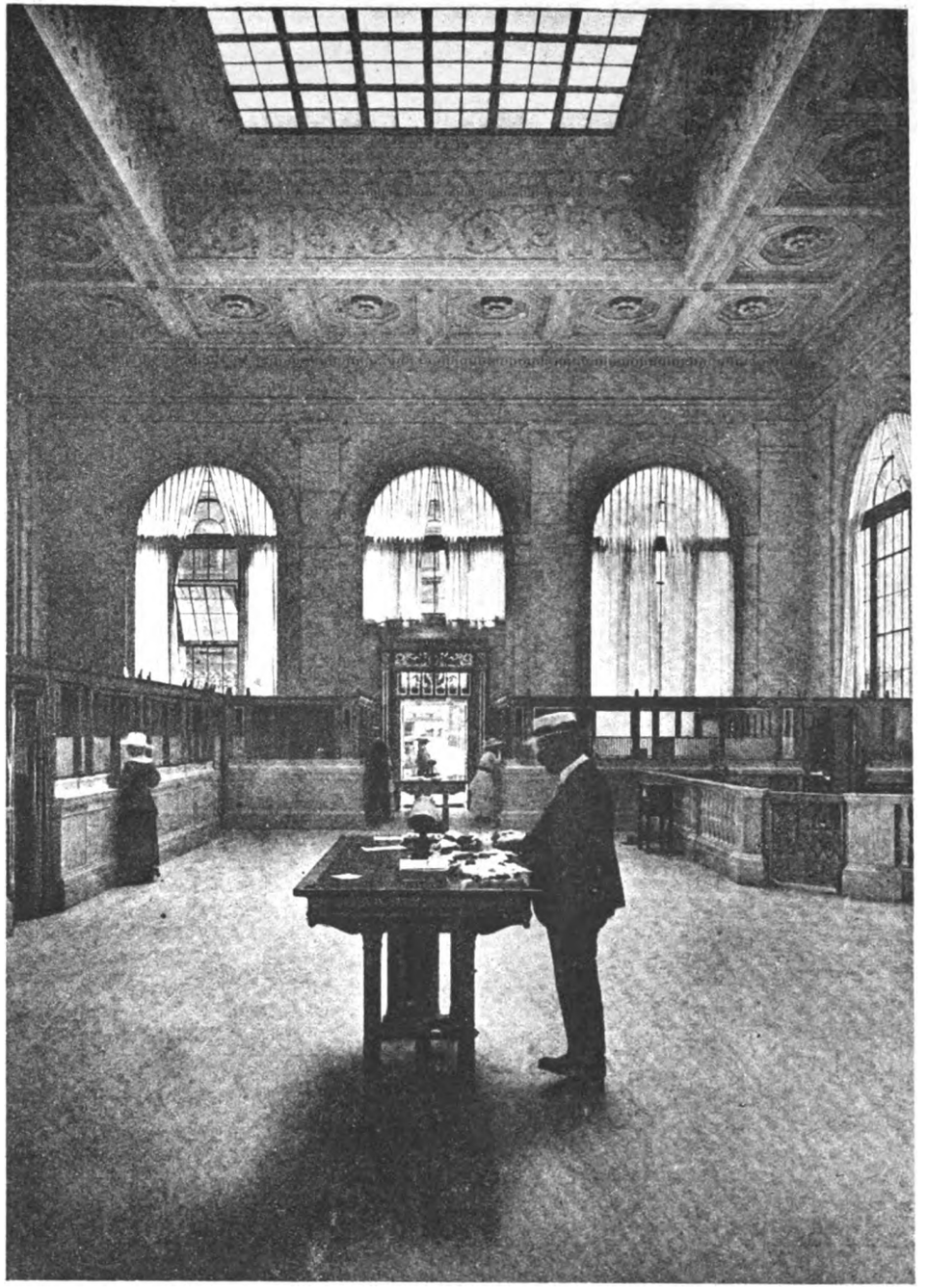
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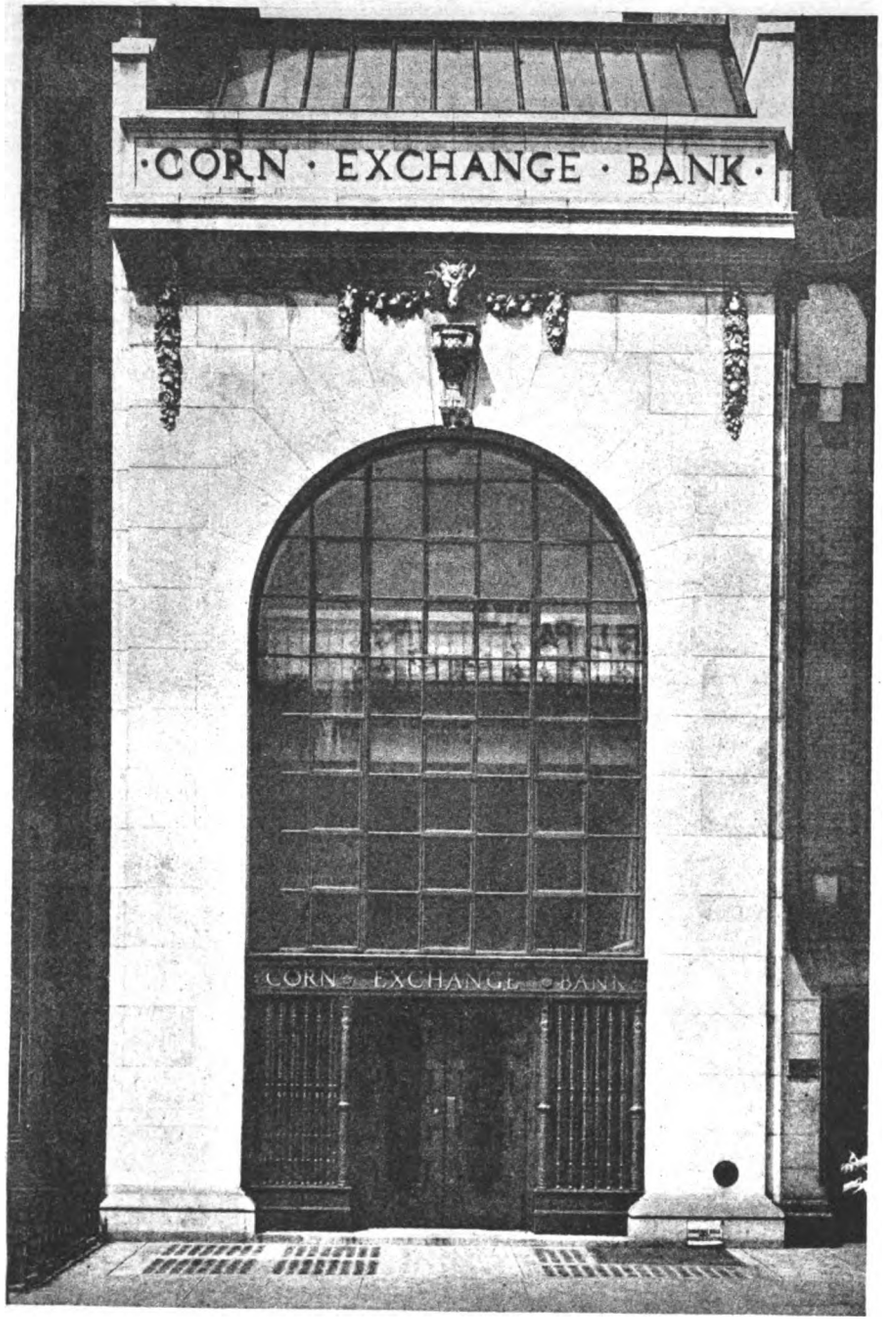
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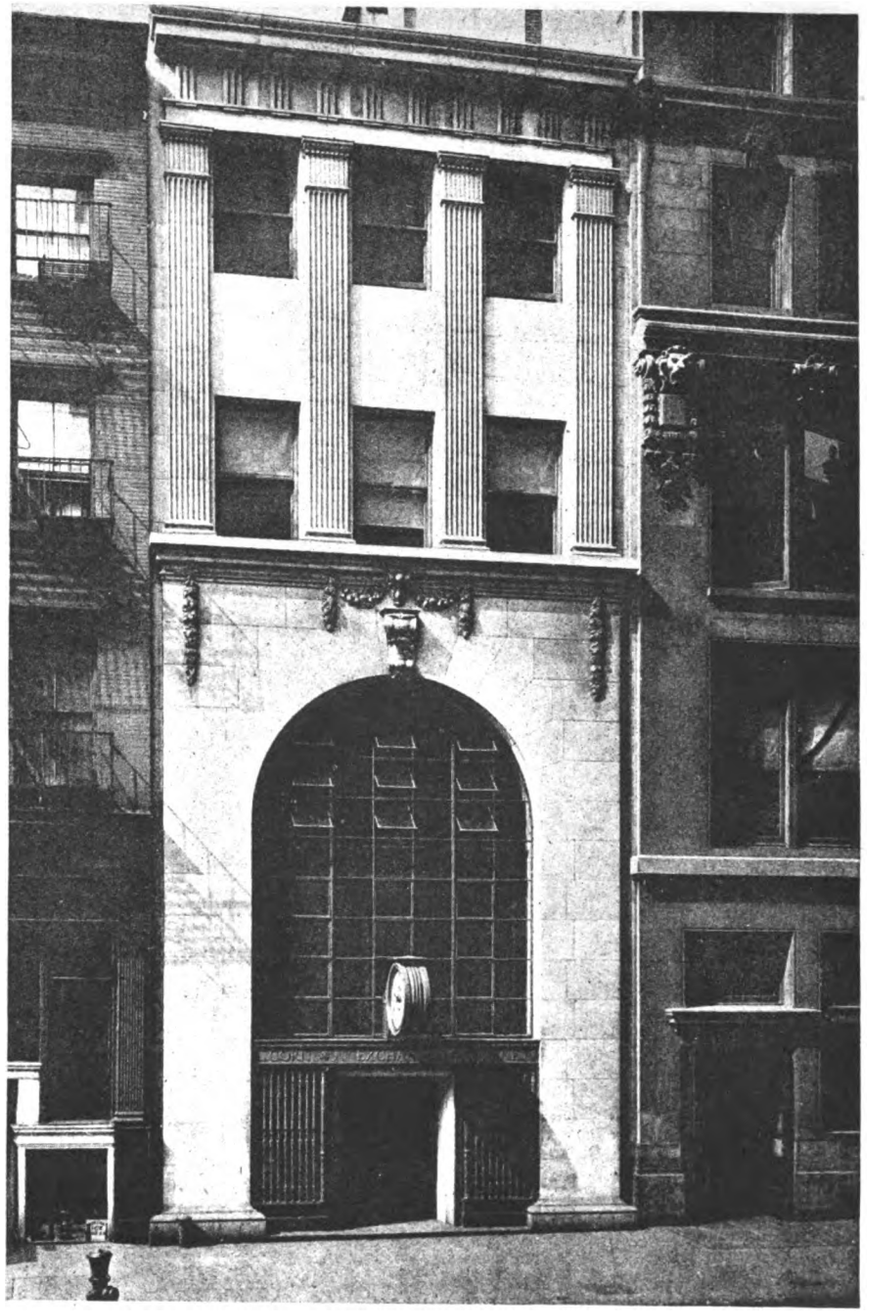
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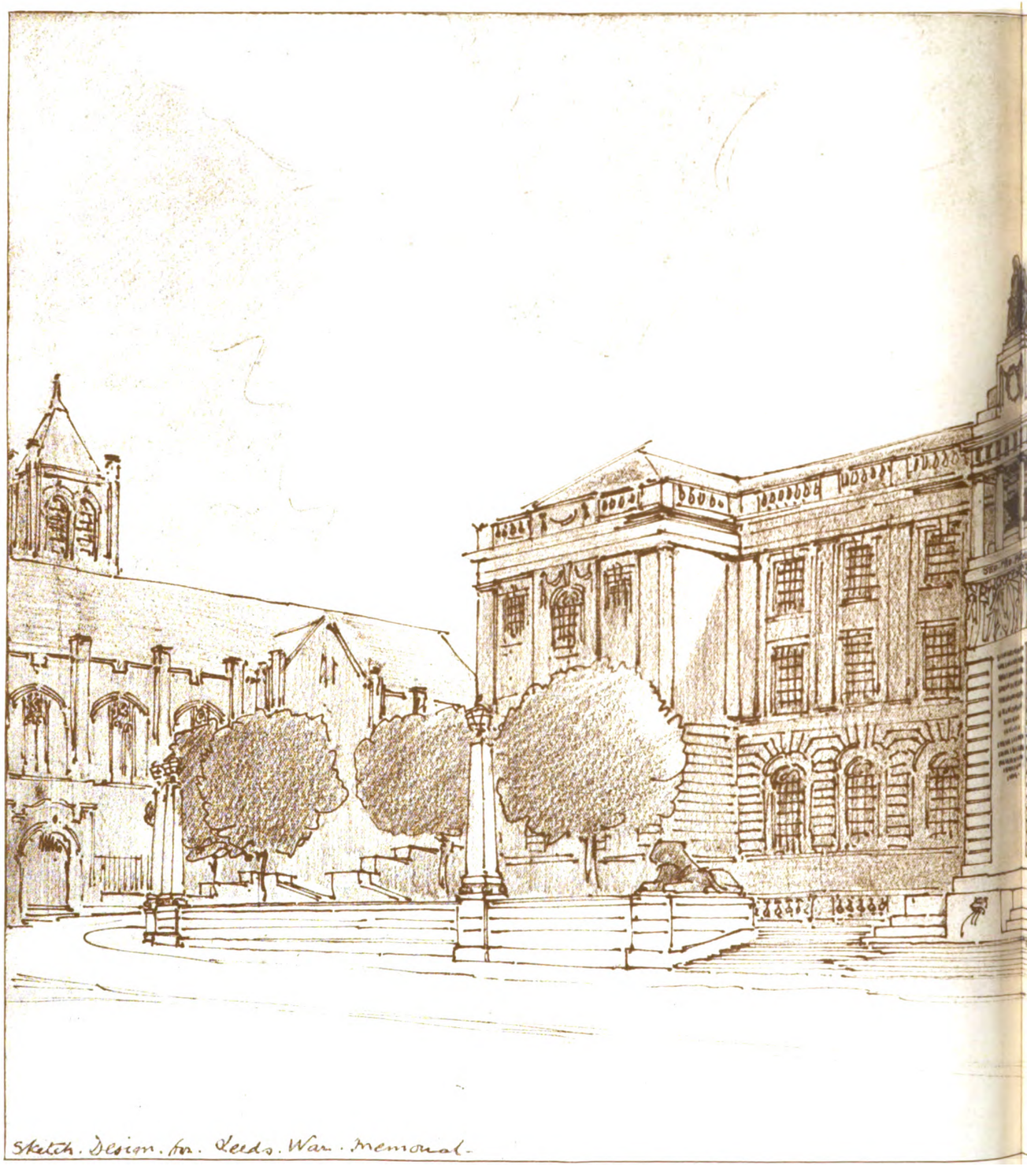
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SKETCH DESIGN FOR
SIR REGINALD BLOMF

Royal Academy Exhibition, 1921.

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Reginald. Blomfield. Mar. & St. 1920

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EDS WAR MEMORIAL.

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bequest of his extensive library; then as personal mementoes they would have his portrait-bust and all his medals, diplomas, and illuminated addresses; while, in addition, the Institute was also vested in one-half share of his estate on the income from which the first charge was to be a sum of money for bursaries and prizes to be known as the Sir Rowand Anderson Prizes.

"We may yet live to see both Forres and Edinburgh competing for the privilege of giving due honour to him whom we remember to-day," were Mr. Paterson's concluding words, "but for us, gentlemen, it seems to me that the Scottish Institute is itself his memorial. It remains for us and our successors, therefore, to make and keep our Institute worthy of him and of service to our art and to our country."

The following were elected as Honorary Fellows of the Institute: Rev. Professor Cooper, D.D., Glasgow; Mr. A. W. Cox, of Glendoick, Glemcarse; Sir J. Alfred Ewing, K.C.B., D.Sc., LL.D., Edinburgh; Sir John R. Findlay, K.B.E., Edinburgh; Mr. D. Hay Fleming, LL.D., Edinburgh; Mr. J. Colquhoun Irvine, Ph.D., Principal of St. Andrew's University; Mr. R. W. R. Mackenzie, of Earlshall, Leuchars; the Earl of Moray; Very Rev. Sir George Adam Smith, D.D., Principal of the University of Aberdeen; and Sir J. Lawton Wingate, P.R.S.A., Edinburgh.

On the conclusion of the conference the members dined together in the Royal Hotel, when among the guests were Lord Provost Spence, Sir William Henderson, Dr. A. H. Millar (City Librarian), Mr. W. H. Blyth Martin (Town Clerk of Dundee), and others. Sir William Henderson submitted the toast of the Institute, and an interesting reply was made by Mr. Paterson.

Conditions of Contract.*

By H. D. Searles-Wood, F.R.I.B.A.

At a conference between representatives of the Royal Institute of British Architects, the Society of Architects, the Surveyors' Institution, the Quantity Surveyors' Association, the Institute of Builders, and the National Federation of Building Trades Employers, held at 9 Conduit Street on May 9, 1921, the President of the Royal Institute of British Architects in the chair, it was resolved: "That a new Form of Conditions for Contract between Employers and Builders should be drawn up for general use in England and Wales."

In view of this resolution it is thought that a discussion on Conditions of Contract would be of interest.

The following extract from Mr. E. J. Rimmer's paper read at the R.I.B.A., March 31, 1919, gives a good résumé of the various forms of contract used during the war:—

Lump-sum Contract without Bill of Quantities.

"The simplest form is the Lump-sum Contract, without Bills of Quantities, relying for the interpretation of its terms upon the plans and specification alone.

This form is constantly in use for small works and for alterations, and casts upon the contractor the responsibility of carrying out of a lump-sum payment all the work shown in the plans, in conformity with the requirements as to material and quality set out in the specification. Under it, the contractor takes upon himself the responsibility of carrying out the work without variation and in accordance with plans, and of doing all work and providing all materials and labour which are incidental to and necessary for the proper completion of the work.

The effect of such a form of contract when used for works of any magnitude is to impose upon the contractor very serious and heavy risks—he accepts, under it, the risk not only of unforeseen accidents and difficulties, but of unforeseen or omitted details of construction. He becomes, in fact, the guarantor of the completeness of the plans and of all preliminary surveys of the architect.

The legal effect of such a contract, while it may be good in law, becomes, in certain instances, most inequitable in fact. If the contractor ought to have anticipated such and such a difficulty not shown upon the plans, or such and such construction not stated in the specification, still more should the person who made the design and drew the specification have anticipated it, and for this reason, while a lump-sum contract is pre-eminently the most favourable to the employer, because he knows the full extent of his liability upon entering into the contract, contractors now almost universally refuse to enter into this form except for small work, unless some provision be made for work not shown in the plans by the incorporation of a Bill of Quantities priced for this purpose.

Moreover, the lump-sum contract pure and simple is unpliable, and should the employer wish, on the advice of his architect, to make alterations or variations in the original plans during the course of the work, he can only do so under this form by entering into a new contract for fixing the cost of such alterations and the terms of adjustment of the same. The R.I.B.A. form of contract, however, makes provision for the assessment and valuation of extra work or variations done under a lump-sum contract even though Bills of Quantities are not incorporated, by requiring the contractor to furnish a verified copy of the original estimate for this purpose (see Clauses 3 and 13)."

Lump-sum Contract with Bills of Quantities.

"For these reasons a very usual form of contract, both in building and engineering works, is the "lump-sum" contract incorporating a Bill of Quantities, which, while not applicable to the payment for the original contract work, is provided in order to furnish a means by which the contract price may be adjusted in the event of any alterations, additions, deductions, or deviations from the original contract work which may be decided upon after the signing of the contract. In this case the Bill of Quantities is a document incorporated into the contract for this particular purpose, and as regards the original contract work is merely an estimate made by the architect or quantity surveyor without warranty for correctness, upon which the contractor may act if he wish. If there is no provision in the contract for rectification of the Bill of Quantities in case of error, or if it is clear from the contract that the Bill of Quantities is merely introduced as a schedule for the purpose of the assessment of the value of any deviations from the contract work, the contractor still takes all the risks of incorrectness of the Bill of Quantities to his prejudice.

By Clause 12A of the existing R.I.B.A. form, however, provision is made in those cases where the Bill of Quantities forms part of the contract, for their rectification in case of error and for such rectification to be dealt with as a variation under the contract, and this at once removes the risk to the contractor in accepting the Bill of Quantities as a correct representation of the amounts required of him.

Under this form, nevertheless, the contractor still accepts the risk of unforeseen circumstances and difficulties resulting in his having to do work not anticipated by him but incidental to the carrying out of the work in a proper manner, and it is urged that all labours should be included in the Bill of Quantities for the mitigation of these responsibilities."

Schedule Contract.

"Where provision is made for the payment and measuring up of all items not expressly provided in the Bill of Quantities, however, the contract may become a less favourable contract to the employer than a purely Schedule Contract, under which every part of the work, including what is in the R.I.B.A. form the lump-sum portion, is entirely remeasured after execution, and under which payment to the contractor is arrived at by the multiplication of quantities so measured by the rates tendered in the Bill of Quantities.

In this case the Bill of Quantities is not only a document used when there are any deviations from the original work or omissions from plans and errors in

* A paper presented at the Conference of the Royal Institute of British Architects (in conjunction with the Liverpool Architectural Society), Liverpool.

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quantities, but contains, in fact, the terms of the contract for the whole of the work. The war has led to a very wide use of this form of contract.

The disadvantage to the employer in such a case is that he relies entirely upon the completeness of the Bill of Quantities and the careful anticipation by the architect and quantity surveyor of all the items of work which will be required for the carrying out of the work. It transfers the risk of unforeseen accident and difficulties in the carrying out of the work from the contractor to the employer. At the same time it means that the employer will pay only for work which is actually done.

One point should be especially emphasised in regard to such a contract in connection with comparison of tenders. The contractor may urge that the correct and appropriate basis of comparison of tenders is the total amount of each tender irrespective of the rates quoted for the various details of the work, but from the employer's point of view every item comprised in the Bill of Quantities by the contractor requires the most careful scrutiny by the architect in the consideration of tenders. The reason for this is obvious: the total price of each tender in such a case will only serve as a good basis of comparison between the several tenders submitted if the Bill of Quantities is complete and accurately compiled, both as to quantities and description of the work to be done, because the actual amount to be paid to the contractor will be greater or smaller, according to whether more or less work is done than that estimated in the Bill of Quantities. A contractor may put a high price upon one class of work which he thinks will result to be greater in quantity than that estimated in the Bill of Quantities, and a compensating lower price on work which he believes will result to be less, with exactly the same result in the total tender as if he had put moderate charges throughout. In this event the cost of the work to the building owner will be greatly increased if the contractor's estimates prove correct.

An illustration of this may be found in a tender for excavation on speculative views as to what the excavation will turn out to be. If the contractor is tendering for soft and hard ground and also for rock, he may have better information than the architect as to what kind of ground he is likely to encounter, and he would then tender a higher price than the normal one for the class of excavation which he believes will be the predominating one to be carried out."

Prime Cost plus Profit Contract.

"Another form of building contract to be particularly considered at the present time is the Prime Cost plus Profit Contract. This form is one which to some small extent was in vogue in this country before the War, notably in the case of the Liverpool Cunard Company Buildings, but which, owing to the exigencies of the War, has become very common and has been the subject of inquiry by Lord Colwyn's Committee. It is one which we shall not be required to deal with at any length in this paper, although there are legal questions involved in the administration of this type of contract which should be indicated.

Where the profit to the contractor is a percentage profit, that is, a percentage on the whole cost of the work, the contractor will take no responsibility whatever as regards economy, and the architect—unless the building owner employs a quantity surveyor for the purpose—must assume certain responsibilities for the economic administration of the work. This is a responsibility which architects will be slow to take upon themselves owing to the high degree of extra supervision and increased work which it will involve, but in order that the contract should be effective at all the contractor must be answerable to someone, presumably the architect or person appointed by him, for the proper rendering of accounts, and for obtaining approval for purchases and payments.

On this matter the author has written at some length a letter to the Editor of "The Times," which was published in a January number of the "Engineering Supplement," but the particular points to be emphasised are:—

1. That the contract should make the architect's approval of quotations for the purchase of material, rates of wages to be paid to the contractor's staff, and the hire prices for machinery and plant, a condition precedent to the payment of these charges.

2. That all payments, of whatever kind, and particularly that of the men's wages, should be actually witnessed or proved beyond doubt by someone appointed by the architect on behalf of the employer.

3. That the duty of time-keeping should be assumed on behalf of the employer, and not left to persons employed by the contractor.

4. That the Prime Cost should be very clearly defined in the contract, and that the expenses incidental to the carrying out of the job should be either expressly included in, or omitted from, this definition.

These four points are important ones, and do not in any way impugn the honesty of the contractor himself, but are merely protective to the employer against the carelessness or dishonesty of anyone in the contractor's employ, by which the contractor will benefit.

In order to enforce these terms, provision should be made in the form of contract whereby the contractor is obliged to conform with them.

Another important point which should, in the author's opinion, be given effect to in this form of contract is that as the contract is one where the contractor's profit is assured in any case, the employer should reserve the power, through his architect, of directing the administration of the job from beginning to end. It is very easy, by giving the contractor an apparently unrestricted discretion to carry out the work in whatever way he thinks fit, to establish legal rights prejudicial to the employer in regard to it, and a special clause should be inserted to retain the employer's discretionary powers to direct how, and in what manner, the work should be carried out on the principle that 'he who pays the piper calls the tune.'"

Fixed Profits.

"In order to obviate the necessity of supervising every detail of expenditure and also to encourage the contractor to exercise the utmost economy on a work of this kind, the profit to the contractor has, in certain cases, been fixed at a lump sum instead of a percentage on the total cost, and bonuses have been offered if the actual cost of the work results to be less than the estimated cost. This form of contract has been recommended by Lord Colwyn's Committee, and, moreover, is one which has received very favourable criticism from many sections of the community engaged in the building trade.

Upon this form of contract being introduced, it is feared that many difficult administrative problems will have to be faced by the architect, and, of course, in regard to it, he will be guided by the provisions of the written contract. It does not, however, seem that the effect will be quite so simple and advantageous to the employer as appears on the face of the suggestion.

In the first place, the control of the administration of the work under such a contract would necessarily be left entirely in the hands of the contractor by reason of the provision in his contract that his profit is fixed, and that a bonus will result to him from expeditious and economical results. Under this form, therefore, as in a Lump Sum or Schedule Contract, the contractor must not be interfered with, but in his case, as distinct from the Lump Sum Contract and Schedule Contract, the money which the contractor is spending, notwithstanding the fact that a bonus may result from economy, is the employer's and not the contractor's money.

It is therefore to be doubted whether an employer would be wise, even when holding out the hope of a substantial bonus to the contractor under certain circumstances, in placing the unfettered control of the expenditure on the work in the hands of one who is not by any means responsible to him for that expenditure.

Moreover, in this case the only proof that the contractor would be required to give for payment of his

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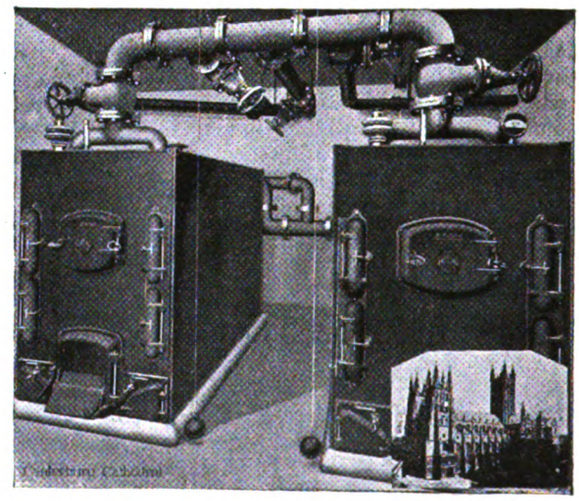
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accounts would be his total expenditure, as distinct from obtaining the approval of the architect on behalf of the building owner of this expenditure from time to time, and if at any time the contractor became assured that he would be unable to earn his bonus, or that more profitable results would be obtained by placing contracts for the supply of material with persons who in return would place advantageous contracts with him, there would be a strong temptation to him not to exert himself in the strictest economical working of the job. While in many cases a provision against such a contingency may not be necessary, one must take into consideration the possibility of the contractor whose tender is accepted proving to be slack and unsatisfactory, and provide against that possibility. The manner in which this suggestion can be carried out would be a written term to negative the implied term that there must be no interference with the contractor in his administration of the work."

The above broad summary by Mr. E. J. Rimmer of the different forms of contracts is more or less indicative of the general consideration which architects should give to the contract for building work which as the agents of the employer they are bound in duty to do.

THE MINISTRY OF HEALTH NO. 3 CONTRACT.

As this document has been largely used by municipal authorities it will have an effect upon public opinion. The general opinion of architects who have worked under this form is fairly summed up in the following statement received by the Council:—

"(*a*) In establishing a guaranteed minimum profit basis of so much per house, there is a tendency by some contractors to accept this as sufficient profit for the work they supervise and, therefore, take little or no interest in the progress or ultimate cost of the works.

(*b*) All fittings, joiner-work, etc., are prepared in the contractor's shops, on the cost of which he obtains a profit of 5 per cent. apart from the profit referred to above. After deducting the value of such items and the sub-contracts for plastering, slating, plumbing, painting, and glazing, we find that the general contractor has so little of his own work on the site to look after as to cause him to lose interest and responsibility in connection with it.

(*c*) We consider there is too much responsibility thrown upon the architect in deciding before certifying whether the whole of the materials which have to be purchased have been bought at the lowest current prices, as he cannot possibly keep in touch with the whole of the markets in which materials have been bought, and there is a possibility of a contractor having a dishonest arrangement with merchants for his own benefit.

Generally we consider that the Form of Contract in question leaves too much in the hands of the contractor, who is protected at every turn and has little responsibility, and we are of opinion that the ordinary Lump-sum Contract is to be preferred from the employer's point of view."

The R.I.B.A. Lump-sum Contract gives the architect's view of what the Conditions of Contract should be. It stands to-day as the accepted form which has been found to work satisfactorily for forty years. That some form of Lump-sum Contract must be found if the building public is to undertake building schemes is certain. All the other forms that are set out above have been tried during the war, with the result that our clients have found building so expensive that work is practically at a standstill.

The following definitions apply to a Lump-sum Contract:—

The Contract is between the employer who buys and the contractor who sells.

The Architect is the agent for the employer for giving interim certificates. He is an arbitrator when he issues the final certificate. As agent, he can be dismissed at any time by the employer, and his only claim is for wrongful dismissal. As arbitrator he cannot be removed by either the employer or the contractor, but he can by both together, in which case he would have the same claim for wrongful dismissal. The architect is given in the Conditions of Contract the general supervision and direction of the work. He must within a reasonable time decide on all claims of the employer or contractor, and on all other matters relating to the execution and progress of the work, or the interpretation of the contract documents. Except as may be otherwise expressly provided in the Conditions of Contract or the specifications, all the architect's decisions are subject to arbitration.

Housing News.

SIR A. MOND stated in the House of Commons that it was estimated that the annual charge on the Exchequer under the Housing Acts in respect of houses already contracted for by local authorities would amount to £10,000,000.

THE Colwyn Bay Council has agreed to proceed with the erection of six more of the "parlour" type and twelve more of the "non-parlour" type of houses. The sewers required for these are already laid. Dr. J. H. Morris-Jones said there were people still clamouring for houses, and 400 or 500 tenements were needed at once.

AT a special meeting of the Skegness Council Housing Committee the architect (Capt. R. H. Jenkins) reported that he estimated that the ultimate cost of the housing scheme would not exceed £115,080. The original provisional estimate was £96,407. It was decided to supply the details to the Ministry of Health and secure its sanction for the full estimated amount in order that the scheme may be completed with as little delay as possible.

THE following figures show the progress that has been made in State-aided housing schemes in Scotland to May 31, 1921: Permanent houses completed, 2,127; temporary houses completed, 493; reconstruction houses completed, 67 - 2,687. Of the 2,127 permanent houses completed 441 have been built by private persons under the private-subsidy scheme, and subsidies to the total amount of £107,523 have been paid by the Scottish Board of Health in respect of these. There are, in addition to completed houses, 12,007 houses under construction.

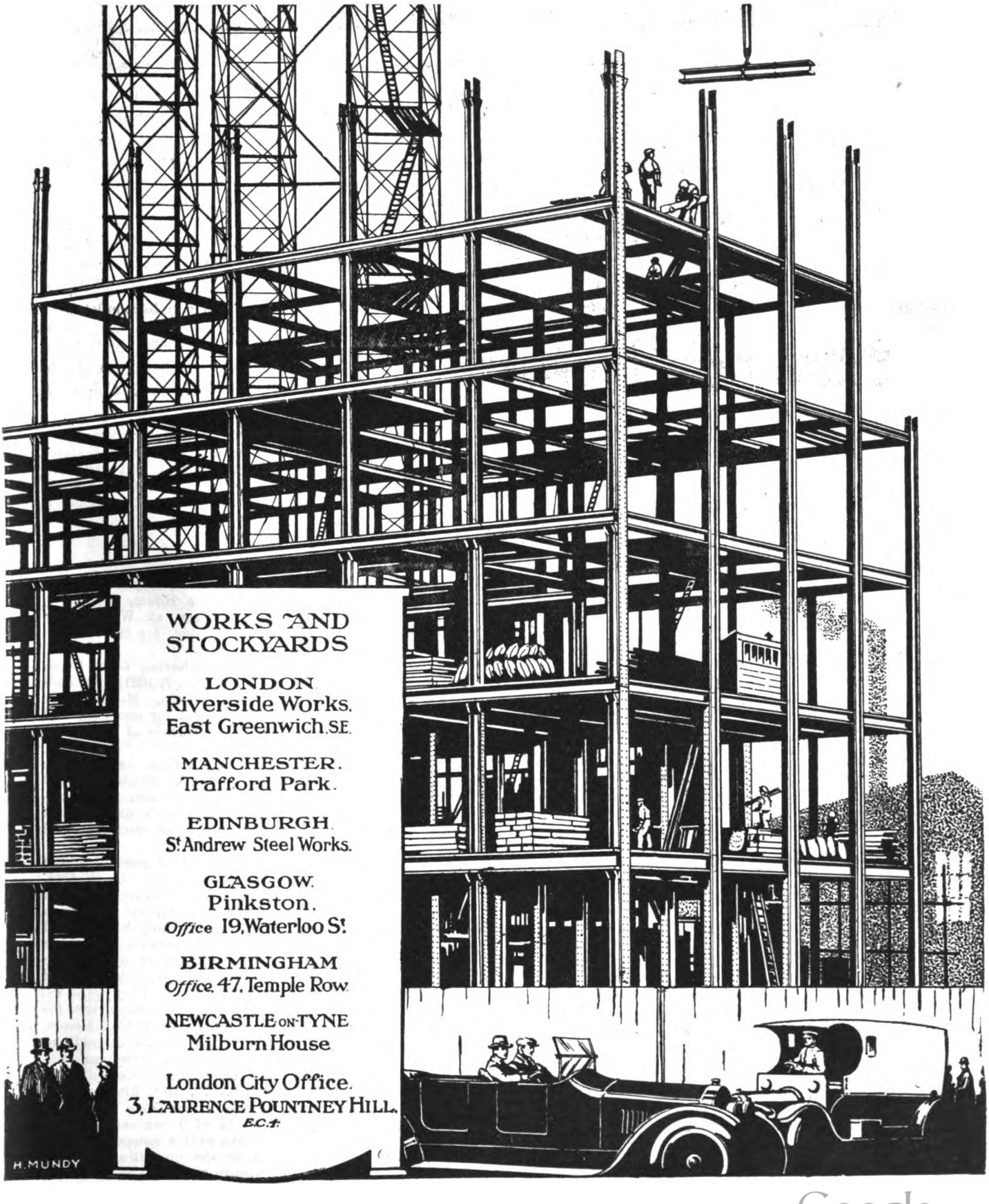
AT a special meeting of the Epsom Urban Council last week tenders were opened for the building of the next batches of houses under the Council's housing scheme. Firms were asked to tender for the erection of 61, 100, and 161 houses respectively, and the majority tendered for the larger number. Twenty firms sent in tenders, and the lowest prices were: R. Mansell, Croydon, £120,504; and Guild of Builders, £120,614. The surveyor to the Council was amongst those who tendered, the intention being for the Council to do the work by direct labour. The figure given by the surveyor was £139,307. The tenders were referred to the Housing Committee.

BIRMINGHAM Housing Committee last week decided, subject to approval by the Minister of Health, to accept tenders for the erection of 183 houses on authorised sites at Farcroft, Handsworth, at King's Heath, Bordesley Green, and Erdington. It was stated there was a distinct drop in prices. Nevertheless, it was thought that the Ministry of Health would look askance at the tenders. It was also announced that it was expected there would be a further drop in prices in the near future. The building schemes mentioned above have already been approved by the City Council.

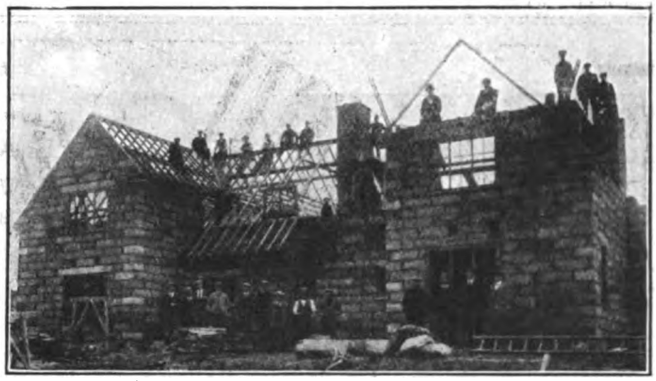
THE Sites and Buildings Sub-Committee of the Birmingham Education Committee report having forwarded the following list of schemes to be proceeded with immediately:—Nansen Road, new elementary school; Kingsbury Road, Erdington, new secondary school; Dartmouth Street, enlargement; Yardley Wood, enlargement; Pineapple Farm, new school; Billesley Farm, new school; completion of work at Aston Lane, Burlington Street, and Vicarage Road; Mount Street, Nechells, new elementary school; Upper Highgate Street Science Centre, purchase; Carnarvon Road proposed elementary school, additional and for access; new special school at Handsworth; Sheep Street, new clinic; and proposed central school in Umberslade Road. In the last four cases the scheme concerns the site only. There is a recommendation to borrow £6,600 in respect of the proposed enlargement of Yardley Wood Council school. It is stated that the estimate for new schools at Billesley and Pineapple Farm estates is about £22,000 in each case. The approximate cost of the scheme for a proposed Council school at Saltley is a little over £26,000.

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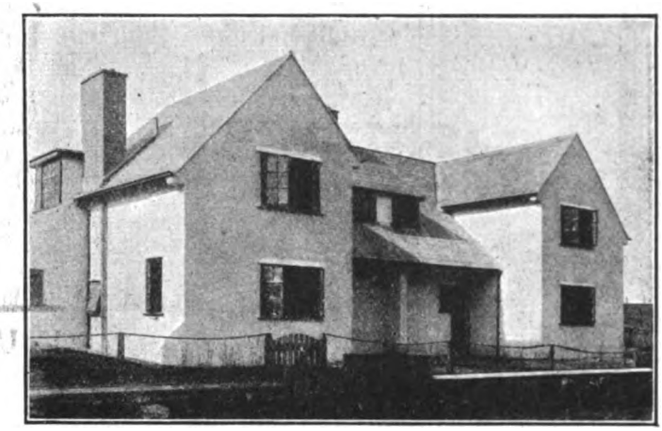
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Five Days' Progress.



Completed in 18½ Days.

A Building Record.

RECORD-BREAKING in housing schemes since the war has generally been in the wrong direction, but a genuine attempt to build against time is reported from Port Talbot, where masters and men have just celebrated what is regarded as a remarkable achievement of British labour. The story is worth giving, if only for the encouragement of others. A big housing scheme is being carried out near Port Talbot in connection with Messrs. Baldwins' Steel Works. It was recently decided to put up two good-sized semi-detached houses for managers of the firm, some eight miles away from the main job. Each house was to include an entrance-hall, two reception-rooms, kitchen and scullery, four bedrooms and bathroom, with generous box-room and out-offices. The contractors, Messrs. John Laing & Son, of London and Carlisle, had a month in which to complete the houses from damp-course ready for occupation. It meant sending out thirty men and all the necessary materials—chiefly "Winget" concrete blocks, with which both houses were constructed—by lorry every day from Port Talbot, but workmen and foremen alike tackled the task with a sporting spirit, and actually completed the houses, even to boundary walls, gates, and electric light, in thirteen and a-half days. The houses, it should be added, were designed by Messrs. Culpin & Bowers.

General.

THE Abbot's Kitchen at Glastonbury has been sold privately by Messrs. Hampton & Sons (St. James's Square) and Messrs. W. H. Palmer & Sons (Glastonbury), before the auction, which was to have been held this week.

FOR the degree of M.Sc. in the University of Bristol the dissertation by Reginald Edward Stradling, B.Sc., on "Maximum stresses in short circular columns of masonry eccentrically loaded," and "Portland cement—its testing and specification—British and foreign methods," has been approved by the examiners.

THE Army Council have asked the assistance of the Council of the R.I.B.A. in obtaining members of the architectural profession to join the Army Reserve of Officers as officers for duty with the Royal Engineers and other technical branches of the Army in the event of emergency. Particulars of this branch of the Service are published in Army Orders 550 (1920).

THE Ministry of Health have up to date paid over £3,000,000 in grants to private builders for the erection of 14,715 completed houses. The number of houses that private builders have announced their intention of erecting with the help of the subsidy is now 30,864, which, if completed, will mean an expenditure of £7,000,000. This partly accounts for this year's increase in the expenditure of the Ministry of Health.

FOUR officials employed in the Office of Works received salaries of £1,000 a year or more in June 1914, says Sir J. Gilmour, replying to a question in Parliamentary papers. There are twelve officials with substantive salaries of £1,000 or more to-day, in addition to which the salaries of sixty-four are made up to that figure by war bonuses. The latter number, however, will be reduced to about forty-two on September 1.

AT a meeting of the governors of the Royal Technical College, Glasgow, last week, it was reported that letters had been received from the Board of Architectural Education of the Royal Institute of British Architects intimating that they had carefully considered the request of the Joint Committee that the diploma of the School of Architecture should carry with it exemption from the final examination for the Associateship of the Institute. They approved the general lines of study laid down in the syllabus, and hoped to be able to grant the exemption asked for, after their chairman, Mr. Paul Waterhouse, had had an opportunity of inspecting the work of the school. The minute stated that Mr. Waterhouse visited the school and expressed cordial satisfaction with all he had seen, and said he would whole-heartedly recommend the recognition of the school for the purpose referred to.

Trade Notes.

MESSRS. THOMAS FALDO & CO., LTD., asphalte manufacturers and contractors, of Windsor House, Kingsway, W.C. 2, have opened branch offices at Westminster Chambers, 37 Brown Street, Manchester, for the convenience of their North of England clients.

W. & G. FOYLE, LTD., 121-125 Charing Cross Road, W.C. 2, have issued a new catalogue (No. 7, 1921) of second-hand and new technical and scientific books. Messrs. Foyle are prepared to send books on approval for one week and do their utmost to satisfy the requirements of every customer regardless of trouble or cost.

MESSRS. GEORGE WRIGHT (LONDON), LTD., have left the premises in Queen Victoria Street, E.C., which they had occupied for more than forty years and are now at 19 Newman Street, Oxford Street, W., where their fine stock of high-class fireplaces, sanitary goods, cooking apparatus, and electric fittings may be inspected.

WAYGOOD-OTIS, LTD., held their annual meeting at the Cannon Street Hotel last week. Mr. Henry C. Walker, the chairman of the company, stated that during the past twelve months they had been able to speed up production and increase the output of the works, which had enabled them to deal with the accumulation of contracts. A number of important contracts were in hand. They were fitting the new premises of Messrs. Selfridge & Co. with twelve of their largest size electric passenger lifts. They were installing a number of electric and hydraulic passenger lifts for Messrs. Harrods, Ltd., Messrs. John Barker & Co., Messrs. Dickins & Jones, and Messrs. Peter Robinson, Ltd., and had just secured the contract for fitting electric passenger lifts in the new county hall for the London County Council. The net profit for the year was £83,069, and, after placing £30,000 to reserve, and £5,000 to pensions fund, the directors recommended a dividend of 9 per cent. on the Ordinary shares. They could have paid a somewhat larger dividend, but, having regard to the prevailing business conditions, it was considered wise to conserve the company's resources.

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The Building Speculator.

WE have frequently emphasised the injustice of placing obstacles in the path of those who legitimately wish to make money out of the development of land by building, and we hold that everyone should be free to spend his money as he wishes; but there are evils against which the public can, and should, be guarded. Many square miles have been made hideous in the past by badly laid-out building areas and unsightly buildings, and, with the coming return of free speculation in building, and the lowering of its cost, old dangers once more come to the fore. Two classes of people have been mainly instrumental in the past for promoting the worst offences against public taste and the amenities of whole districts, these being the smaller class of speculative builder and the ordinary estate agent. Both err from ignorance, but the estate agent usually lays claim to a modicum of education which renders his offence the greater of the two. It may be urged that town planning is a modern innovation, and not one the rudiments of which the agent can be expected to have mastered; but the profound assumption of many men of the class imposes on the public, for there is hardly anything with which the "estate agent, auctioneer and surveyor," as he usually calls himself, does not assume he is competent to deal, while the general level of the speculative builder's work, though deplorably bad, has not been uninfluenced by the general improvement in architectural design. The estate agent, on the contrary, is still to-day what he was in the past—a man who, in order to obtain the largest immediate price for the land he is selling, will unduly restrict frontages, propose roads with the sole object of opening up a site in the cheapest manner without regard to the general wants of a neighbourhood, and will encourage the building of the shoddiest description in order to induce purchasers to open up a site. Wherever a new residential district becomes popular, these enterprising gentlemen are to be found working in most cases steadily to make it undesirable. The evil can, and should, be met by the adoption in every developing district of the Housing and Town Planning Act, and by increased vigilance on the part of local authorities, who should exert their powers to so frame the general lines on which a district is developed as to minimise the risk of spoiling any part of it. As it is, we sometimes turn from parts of the most beautiful districts in the Home Counties to the older and decaying portions of the metropolis with a sense of relief, for if there is much which is dull and sordid, there is frequently little which is vulgar excepting the curse of the displayed advertisement or notices which legislation which would not penalise anyone could readily deal with.

The estate agent is usually a man who takes short views, for the very steps he takes to induce his first sales are usually detrimental to his later ones. Public taste, though still far from what we should like to see it, has improved from the late Victorian standards, and is gradually becoming conscious of new wants, and the fact that the first half-dozen houses on a building estate are badly placed and designed with no regard to public amenities, may in some cases lead to building stagnation in a whole district.

Much can, and should, be done by the exercise of powers we possess; and it is very important in the near future, when activities in the building trades are likely to be increased, that these powers should be more fully understood and put into operation. The greatest reform of all is, unfortunately, not one for which public opinion is ripe; and, if it ever is ripe, the time during which it could have been done will probably have passed away.

A building should, to be seen to greatest advantage, either be placed in fairly close proximity to others, so as to group with them, or to be entirely isolated and out of sight of other buildings. Modern development has covered a large part of Surrey and other counties with a scattering of houses which punctuate the country in every direction, so that we sometimes feel we have neither town, village, or country, but ever-present suburbia.

The old country villages, separated by wide stretches of unbuilt-on land, with occasional farms and cottages, gave the maximum of charm to both country and villages. Separated from one another, the buildings of many of our villages would be commonplace; together, as we see them, they form delightful groups.

But we do not suppose that a people whose instincts are individualistic, despite the Socialist tendency of much of our legislation, are likely to stop to think how much comfort and happiness they may miss by failing to work out problems from a broader standpoint. If they did so there is a strong probability that they might revert to customs which were imposed on our forefathers by the need for security by difficulties of communication and other factors, but which, incidentally, made the best of both town and country and gave us an ideal "lay out" we might try to work up to.

We can hardly over-emphasise the charm of either an English village or of our smaller towns, but we should, in doing so, point out that the main cause does not consist in the excellence of design of individual buildings, but in their relation to each other. We may examine such towns and villages only to find that their individual features do not afford us any "copy." A doorway here and there, or an old shop-front, will often form the sum of noticeable features, and even these may not be particularly excellent in type. But, while admiring the *mise en scène*, we go away and arrange our new buildings on quite other lines, often spending much thought and ingenuity, while we have, in consequence, to admit regretfully that we have absolutely failed to build anything having the charm of the simple and quiet work of former craftsmen or master builders.

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Notes and Comments.

Architecture in India.

UNDER the above heading our contemporary "Indian Engineering" again urges the folly of terminating the appointment of consulting architect to the Government of India. It points out the necessity for some lead being given with authority as to whether Government buildings "are to conform to the indigenous architecture of the locality, or to be in a manner strictly apart, or be a happy blend expressing local features and British features in one." It further says that the consulting architect should not be loaded with executive work of his own, but should have time to criticise and suggest ideas and methods to others who carry out executive work. The lack of such co-ordination means that no progress will be made towards what all wish to see—the production of indigenous Indian architecture. All this is perfectly true, but there is another point which might have been urged which is that having been responsible for much deplorably bad work in the past in India those in authority are doubly bound to do what they can to undo evils which are largely of their own making. We might further add that an enormous reduction must be made in the work which the head architects of the various provinces are expected to design and supervise, for it would require superhuman powers to control the mass of building which passes through each architect's hands in a year. The employment of a greater number of architects of ability is urgently required if the architecture of Government buildings is to receive due attention.

Stowe House.

WE are glad to read that Stowe House has been purchased and presented to the nation, though exactly what the nation will do with it is not clear as it is three miles from Buckingham, in the midst of a country district. Where a great house like Aston Hall is in close proximity to a large town there are many purposes for which it can be utilised, but Stowe is in another category. As a matter of fact the public usually has the advantages of a privately-owned great house. Its grounds are usually open to the public under some light restrictions, and in most cases the house itself is open at certain times for visitors. We obtain in such cases most of the advantages of public ownership without the cost, a point which is hardly realised by those who would confiscate private property. But the enormous burdens laid on land and possessions are such that we shall probably see many of our great houses left vacant or let, which will be the disadvantage and not benefit of the general public and that smaller part of them who have obtained employment from the owners of the ancestral homes of the aristocracy.

Architectural Criticism.

WE think the writer of the following letter to the "Liverpool Courier" has scored a few points, and we quote it in full:—

"The exquisite taste of the Liverpool University professors of architecture is shown not perhaps quite so much in their architectural works as in their criticisms of the efforts of less enlightened architects.

Stripped of camouflage, the statement of Professor Adshead that the only buildings which should be entrusted to a municipal architect are those which are underground is one which surpasses the descriptive and often lucid criticism of the Army or the street arab.

I am no supporter of municipal housing, but if our Liverpool housing director were disposed he might test the credentials of his critics by putting the following questionnaire:

1. Is it or is it not a fact that the professorial interest in housing commenced simultaneously with the prospect of Government-controlled housing schemes?

2. Were not the Government urged upon their disastrous housing schemes by the professors and similar supermen?

3. Had the said professors any previous knowledge of, or practical experience in, housing the working classes?

4. Is it largely due to the attempt to put into practice the academic theories of professors that a workman's cottage now costs £1 per week to the tenant and £60 per year in addition to the taxpayer?

5. Would the cost be reduced by entrusting housing schemes to professors of the Liverpool University?

6. Is it fair to expect the less enlightened architects to contribute through the rates to the fees of University professors who at the same time attract to themselves as a result of their standing given to them by their position at the University a large volume of work which would otherwise be distributed?"

Criticism has a way of recoiling like a gun if it is not carefully exercised, and few could deny that the above letter is not justified, though we think that we could mention some besides university professors who are responsible for the present impasse.

The Islington Town Hall.

SEVERAL "experts" have been asked to give an opinion on the feasibility of altering and adding to the Islington Town Hall, the experts being Mr. James Patten Barber, a member of the Institute of Civil Engineers, Mr. E. C. P. Monson, (the architect of the proposed new Town Hall), Mr. H. D. Searles-Wood, and Mr. Edwin J. Sadgrove, Past President of the Society of Architects. One of these experts may naturally be supposed to consider the matter a *chose jugée*, but it must be admitted that the whole of them report against the possibility of adding to the existing buildings because of the insufficient thickness of walls and the interference with rights of light which such extensions would involve. But it may be that although existing accommodation is inadequate in view of the size of present departments, committee rooms, and for the accommodation of the Council that these requirements could be reduced, and that such reduction would render the existing buildings adequate for their purposes. We have, for example, read accounts of some recent debates at Islington, and cannot see what public purpose is served by them or that they are markedly different in character to many of the wrangles we hear in passing through our streets. If proceedings in the various committees are in keeping with those of the august council, the question is whether local government is worth having. And with regard to departments is it not possible that there is a wide margin for possible reduction not only at Islington but elsewhere, as most of us believe there is in Whitehall itself?

"English Sculptors from Pierce to Chantrey."

THE co-operation of architects and archæologists is earnestly sought by the author of the papers on the "English Sculptors from Pierce to Chantrey" now appearing in our columns, for the compilation of which MS. sources have been largely used. The subject is, however, so extensive that the author cannot hope, single-handed, to do more than touch the fringe of the subject; and although a large number of unattributed and unpublished monuments have been brought together, those who know of works by any of the undermentioned sculptors, or unrecorded MSS. containing information about any of them, and not mentioned in the usual sources, will confer a great benefit by communicating with Mrs. Esdaile, c/o the Editor of this paper. All such communications will be gratefully received and duly acknowledged.

The sculptors in question are Pierce, Cibber, Gibbons, (monumental work only), Bushnell, Bird, Scheemakers, Rysbrack, Roubiliac, Milton, Banks, Nollekens, Bacon, Chantrey and Mrs. Damer have been so thoroughly done that there is probably little to add in their case.

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Illustrations.



FRONT ELEVATION

Proposed Polytechnic Institute at Lashkar, Gwalior. BURJOR S. JAMSHEDJI AGA, L.C.E., Licentiate R.I.B.A., M.S.A. (London), Architect of SHAPOORJEE N. CHANDABHOY & Co., F.R.I.B.A., Architects, Engineers, and Surveyors

MODERN INDIAN ARCHITECTURE. SHAPOORJEE N. CHANDABHOY, F.R.I.B.A., Architect.

The work illustrated is interesting though it does not reflect credit on the system which has hitherto held sway in the design of modern Indian buildings. Mr. Havell is perfectly correct in his contention that the work of the modern Indian master builder is on infinitely better lines than the European travesties of the Renaissance which seem to pass muster in India. A greater and finer fusion of Eastern and Western types of design is essential if we are ever to found a school of modern Indian work which can have a chance of expressing the ideals of an Asiatic people, modified and brought into keeping with the wants of to-day.

WAR MEMORIAL HALL, SHEFFIELD. E. VINCENT HARRIS, F.R.I.B.A., Architect. Royal Academy Exhibition, 1921.

PROPOSED HOUSE, LATCHMORE GROVE, GERRARD'S CROSS. WILLS & KAULA, Architects.

Forthcoming Events.

Friday, July 8.—Town Planning Institute.—Seventh annual meeting at 92 Victoria Street, Westminster, S.W. Paper by Prof. Patrick Geddes entitled "City Survey and Design as Policy and Theory of Town Planning." 5.30 P.M.

— Architectural Association.—Distribution of Prizes by Mr. Ernest Newton, C.B.E., R.A., F.R.I.B.A., and Exhibition of Students' Work at 34 and 35 Bedford Square, W.C. 4 P.M.

Saturday, July 9.—St. Paul's Ecclesiological Society.—Visit to Staple Inn Hall, Holborn. A paper will be read by Dr. W. Martin, LL.D., F.S.A. 2.30 P.M.

Monday, July 11.—Royal Archæological Institute of Great Britain and Ireland. Summer Meeting at Gloucester in conjunction with the Bristol and Gloucestershire Archæological Society (six days).

Thursday, July 14.—Royal Society of Arts.—Paper by Prof. Henry E. Armstrong, Ph.D., LL.D., D.Sc., F.R.S., and A. C. Klein entitled "Paints, Painting and Painters, with reference to Technical Problems, Public Interests and Health." 8 P.M.

Saturday, July 16.—Royal Institute of British Architects.—Visit to William Whiteley Village Homes, near Walton, Surrey. A motor omnibus will leave Conduit Street, W., at 2 P.M.

Correspondence.

The Liverpool Conference.

To the Editor of THE ARCHITECT.

SIR,—Mr. McArthur Butler must let me assure him that it was in no way lack of courtesy or good will that prevented the Institute from extending its invitation to the members of the Society of Architects. The Conference was merely one of the efforts that the Institute is constantly making to keep in touch with its provincial members and to realise their particular difficulties and their point of view generally; it was really a domestic matter and not a general conference of architects. Members of the Society of Architects who belong to our allied societies were included in the invitation, and I hope that many of them availed themselves of it. The Architectural Association is not allied because it is a Metropolitan body and an educational rather than a professional one, but the contact between it and the R.I.B.A. is so close that it could hardly be omitted.—Yours, &c.,

ARTHUR KEEN, Hon. Secretary R.I.B.A.

The Royal Institute of British Architects,
9 Conduit Street, Regent Street, London, W. 1.
July 4, 1921.

Competition News.

THE designs submitted in the recent competition for the Hillhead (New) High School will be exhibited in the office of the Education Authority of Glasgow (129 Bath Street), from July 6 to July 23 (exclusive of 15th, 16th, and 18th inst.), from 9 A.M. to 5 P.M.

THE Leeds Corporation Improvements Committee recommend that an area of 1.427 acres of land on the Hawksworth Wood estate be sold for £700 to the Leeds Church Extension Society for the erection of a place of worship. They also recommend the sale at £300 per acre, plus part cost of sewering and kerbing, of 1.135 acres of land on the Crossgates estate to the Leeds Diocesan Trustees for a similar purpose.

THE memorial to commemorate the 450 members of Trinity College, Dublin, who fell in the war is to take the form of a Hall of Honour in connection with a reading-room for the library which it is intended to build when funds permit. This will be placed between the library and the theatre and will extend some paces into the Provost's garden. A design by Sir Thomas Deane has been adopted which, while not impairing the architectural dignity of the library, will provide a beautiful as well as a useful building.

THE King, on the recommendation of the First Commissioner of Works, has consented to the opening to the public of the Wren orangery at Hampton Court Palace in order that the nine large Tempera paintings by Andrea Mantegna, representing "The Triumph of Julius Caesar," may be shown to the public under more favourable conditions than have ever been possible before. A charge of 2*d.* to visitors will be made on account of the heavy expenses which the Commissioners of Works have been put to in putting the orangery into a condition to house the collection.

THE Island Site, Hyde Park Corner, has been selected by the Royal Artillery War Commemoration Fund for the erection of their war memorial. General Sir H. C. Sclater presided last week at the second annual meeting of the fund, when two designs for the memorial were submitted—one the work of Sir Edwin Lutyens, R.A., and the other the work of Sir John Edwin Du Cane, K.C.B. The sculptor for Sir Edwin Lutyens was Professor Derwent Wood, and for Sir John Du Cane, Mr. Charles Sargent Jagger. The design—a sculptured group in bronze on pedestal—submitted by Mr. Jagger, for Sir John Du Cane, was accepted. The dominating feature of the memorial will be a 9.2 howitzer in stone. The cost is expected to be about £25,000. Mr. Jagger, who was educated in Sheffield, won the Prix de Rome for Sculpture in 1914, and in September of that year joined the ranks of the Artists' Rifles. There is a fresco by him of "The Worcesters at Gheluvelt" in the Imperial War Museum.

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London Art Galleries.

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The Women's International Art Club is now holding an exhibition of work by its members in the Galleries of the R.B.A. in Suffolk Street, Pall Mall East. The present display is by no means devoid of interest and merit, though it may fairly be asked how far it justifies its somewhat grandiloquent title of "International." Not only are foreign women artists of standing to be sought for within the names in the catalogue; but we do not find there some of those whose work in its virility and force or its charm of design and colour—in this connection Mrs. Laura Knight, Miss Flora Lion, Miss Anna Airy come at once into our thought—makes a notable contribution to our modern English art.

With these qualifications, however, we shall find plenty of interest in this year's Women's International: in the first room as we enter, C. Law Adam, in her water-colours of "Clouds" and "Wind," shows a fine handling of cloud form and trees, and Phyllis Emerson gives us some interesting impressions of Greece in "Path from Priphtani, Argive Plain," in "The Vale of Tempe, Dawn," and "Lycabettus from the Acropolis, Athens." Josephine Miller's study of the "Alcantara at Toledo" is strongly drawn, and—still in this first room—Hilda Dash has a figure study of a child, which is kept loose and with good colour; but undoubtedly one of the pillars of strength of this society is Elsie M. Henderson. Her colour prints and lithographs in the second room, of animals, wild or tame, and birds—"Condors," "Jaguar Tearing its Prey," and "The Cat's Toilet," this last delightful in its sleek self-satisfaction—are really masterly; and what this artist can do with the human figure is shown here in her "Nude," a seated female figure, drawn in strong, secure lines, in which may be noted the magnificent sweep of the muscles—the "gluteus maximus" and "vastus externus"—beneath the tightly bent right thigh.

Another tower of strength to the Club is no less certainly Ethel Walker. Her decorative figure in the same room with the last-mentioned, of "The Waking Earth," a nude figure of a girl with crimson mantle dropping from her shoulders, and kneeling on the flower-covered grass, has a fine imaginative sense, and might recall to us—even if not actually inspired by—that wonderful vision of the creative mother of loveliness and life, the "alma Venus" of the Roman poet, by whom all living creatures are conceived, to whom the dædal earth pours forth its flowers . . .

". . . Tibi suaveis dædala tellus
Submittit flores, tibi rident æquora ponti."

In the large gallery we find the same artist's landscape of "An October Morning, The Peak," looking across the room to Elinor Darwin's charming group of children dancing on the sands, well composed and full of movement, but somewhat spoilt by the baby figure in the corner, whose action is like that of a marionette pulled by wires. In this room is E. Borough Johnson's "Café Restaurant," a sunny scene, quite Italian in its surroundings, C. M. Baker's charming "Street in Abingdon," Irene Ryland's "Sychnant Pass, North Wales," all deserving mention, and Mary McDowall's pictorial conception of "The Garden of Eden," with a very heraldic lion in the corner carefully turning his back on our first parents.

Goupil's Gallery is now occupied by an exhibition of "Representative Works of Painters of the Modern British School," among whom Wilson Steer, especially in his landscape work—his "Chepstow Castle" and "The Rainbow" are good examples—is very well represented, beside work by James Pryde, Henry Tonks, Augustus John, and Walter Sickert. Two interesting landscapes here are by J. D. Innes ("Bala Lake") and Derwent Lees ("Bonnuls, Roussillon"). Upstairs in this Gallery Mr. William Marchant has brought together 236 drawings and paintings, which include in the last room D. G. Rossetti's beautiful "Rosa Triplex," beside work by Leonard Richmond, Harry Watson, Lamorna Birch, and Barnard Lintott. In this somewhat diffuse display the drawings are not to be missed, especially Mrs. Laura Knight's clever "Studies of Movement," in which the dominant lines of the form are alone sought, and the figure studies by Leighton—a rather weak and academic little nude—Meninsky, R. C. Ihlee, Charles H. Shannon, Augustus John, and the late William Strang.

The Greatorex Galleries have brought together this month a really remarkable group of "Early Etchings by E. S. Lumsden, E. Blampied, W. Lee-Hankey, Troy Kinney, and Charles W. Cain." Two points to be mentioned with approval in this exhibition are the high level throughout and the variety of subject. Commencing with E. S. Lumsden's etchings of the "Paris in Construction" series, and the East in such scenes familiar to his etching needle as "The Fruit Shop," with its Eastern figures, "The Palace, Jodhpur," and "The Great Wall," we come next to Troy Kinney, who seems to specialise in dancing figures, and the success of whose etchings, both here and in America, I have already mentioned in these columns. His dry-point etchings of "Lopokova and Nijinski," and of "Adeline Genée," with the background carefully hatched, I believe to be earlier work; in his later figures of dancing girls in "Swallows" he uses almost pure line, but gives very wonderfully the swing and sense of movement.

No more effective contrast to these last in their fugitive grace could be found than the work of E. Blampied, with its strongly bitten line, on the same wall in such subjects as "Vraic Men," "The Cowman," and "Sunday Morning Bathers"—men riding the cart-horses into the sea: but I wish to give special attention to the work of an etcher who has only lately, as I believe, come before the public here. Mr. Charles W. Cain was actually born in London in 1893, but at 1912 was working as cartoonist to the Johannesburg "Star." On the outbreak of the war he joined up; he was on service in Mesopotamia, and after the fall of Baghdad helped to organise the first exhibition of modern—perhaps of any—art ever held in that ancient city, and on his return was able to visit Persia, India, and Burmah. His work here, dealing with the East ("The River Tigris," "Three Men in a Mashoof," "Baghdad, Bridge of Boats"), is rich in its contrast of black and white, and possesses very high quality of design. Lastly W. Lee-Hankey uses effectively the wet plate and aquatint in his landscape and figure subjects here.

S. B.

Art News of To-day.

At Sotheby's Salerooms last week the collection of the late Mr. Henry Bruton, comprising both books and drawings, realised a total of £13,273; among the most interesting features of the last day's sale being two sets of drawings by that master of English caricature Thomas Rowlandson. These included the set of designs for the "English Dance of Death," which went to Mr. Sessler, of Philadelphia, for £1,300, while Messrs. Quaritch acquired for £290 the drawings by this artist to illustrate Shakespeare's "Seven Ages of Man." When Rowlandson was journeying to Spithead to visit the wreck of the "Royal George" he made from his postchaise a set of sketches to illustrate humorously the life of that time, and these also went, for £800, to an American purchaser. The Egyptian treasures of the eighteenth and other dynasties from the Amherst collection, including portrait figures of the Pharaohs and their queens, recently sold at Sotheby's, were almost on a level with those now being shown at the Burlington Fine Arts Club; their sale reached a total of £14,533.

At Christie's, last week, a portrait by Sir Peter Lely of Anne Hyde, who married King James II. when he was still Duke of York, fetched 280 guineas.

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Royal Institute of British Architects.

A SPECIAL General Meeting of the R.I.B.A. was held on Monday, July 4, when the following resolutions were considered:—

(1) "That Clause 9 of the Scale of Professional Charges be altered to read as follows: 'In the case of housing schemes and laying out estates special arrangements may be required in exceptional cases, but for ordinary purposes the scale of fees are the same as those set out in the Ministry of Health's General Housing Memoranda No. 31, No. 51/D and No. 52.'"

(2) "That the Ministry of Health's General Housing Memoranda No. 31, No. 51/D and No. 52, setting out the fees payable to architects in connection with State-aided housing schemes, as agreed with the Ministry of Health by the R.I.B.A. and the Society of Architects, be incorporated as an Appendix to the Scale of Professional Charges published in the R.I.B.A. Kalendar."

Mr. Arthur Keen, the hon. secretary, said that unfortunately the President was not able to be present that evening, and as there was no vice-president present it was necessary for the meeting to elect their own chairman.

It was proposed and seconded that Mr. Herbert A. Welch, A.R.I.B.A., should take the chair. But Mr. Welch asked that Mr. H. V. Lanchester, past vice-president, should be elected chairman, and this was unanimously agreed to.

Letters were read from the Oxfordshire Society of Architects, the Northern Architectural Association, and a number of provincial members in support of a protest being made against the hardships imposed by the latest memoranda of the Ministry of Health.

The adoption of the resolutions was formally moved by the chairman and seconded by Mr. James S. Gibson.

Mr. Herbert A. Welch described the negotiations between a deputation of the R.I.B.A. and the Society of Architects which met the Ministry of Health on May 6 last. It was subsequently decided that the final consideration of any memorandum drafted by the Ministry should be left to Mr. James S. Gibson, and that Mr. Welch would assist him. But in the actual event he (Mr. Welch) had not seen any draft at all. With considerable reluctance he proposed that the so-called agreement with the Ministry of Health should be referred back. Under the circumstances any proposals ought to have been submitted to the deputation concerned before being passed to the Council for approval; that is to say, a deputation ought to do their work themselves instead of having it done for them.

Mr. W. G. Watkins described a case in which he personally was concerned in which very real hardship would be suffered under the proposed scale for abandoned work. The full scale of fees would have amounted to £2,300; whereas under Memorandum 52 they were only entitled to £180. The scheme was for a rural district council and comprised twenty-one sites; but the Ministry wanted to treat the whole as one single scheme, though each site presented its individual problems and there was a large amount of work which was not repeated. Tenders were received for houses on thirteen sites and were all turned down by the Ministry. Such a case was, said Mr. Watkins, by no means exceptional in the provinces.

Mr. G. Leonard Elkington expressed regret that no one on the Council of the Institute was at the meeting so as to explain the action taken.

Mr. James S. Gibson then gave an account of the action taken by the R.I.B.A. The real reason, he said, which gave rise to the meetings with the Ministry was the fact that no provision had been made for abandoned schemes. The Treasury officials denied there was any liability for such. Originally no abandonment was contemplated. Unfortunately the Treasury was the only authority which mattered so far as payment of fees was concerned. He admitted that the finished Memorandum did not correspond with the draft. There had been no time to consult Mr. Welch before keeping the telephone appointment with the Ministry. Mr. Welch had stated that the Ministry promised to delete the allusion to architects preparing quantities for roads and sewers on the ground that the words had originally appeared as the result of an oversight. This matter had been discussed at length and ultimately it was agreed to continue to include it. The R.I.B.A. Council agreed that it would be extremely unwise to go back on what had been previously agreed to between the Ministry and any representative body of architects—even though such agreement might involve hardship. The Council came quite honestly to the conclusion that Memoranda 51/D and 52 was an attempt to arrive at a settlement which would serve as a reasonable basis for the payment of architects for work done in perfectly good faith. In the event of the resolutions not being accepted, the view is held that there will be no redress except by going to law. If it was the opinion of the members that it was better to establish their case by going to law, then that may be done. On the other hand, it might be decided that it was best to accept the specific terms as some sort of reimbursement for time and labour. The difficulty of meeting individual hardships seemed insurmountable when framing national agreements. There must inevitably be a lot of perfectly cruel cases. Such inequalities could not be avoided. It was up to that meeting to say to the R.I.B.A. Council that they did not want any agreement other than what they have already got. The Ministry were entirely unauthorised in their statement that the terms and conditions set out in Memorandum 52 have been agreed by the Royal Institute of British Architects—they had certainly been formally approved by the Council but not by the general body of members.

Mr. Sydney Perks stated that it had been decided by the Council to obtain counsel's opinion on a test case within the next few days. He hoped the meeting would take up a strong line by repudiating the proposed resolutions instead of merely referring them back.

Mr. H. A. Welch spoke of his efforts when a member of the deputation to lessen the hardships proposed. He also declared it was grossly unfair to pay the same fees for rural and urban schemes as the two problems were entirely different.

Mr. G. Gilbert Scott hoped that the proposed new scale would be printed on a separate slip rather than included in the document showing the Scale of Professional Charges. Nothing was in the R.I.B.A. Kalendar with reference to housing schemes.

Mr. G. Leonard Elkington instanced a case of a scheme abandoned by a London authority in which he and two other members, acting independently as architects, were being called upon to refund fees already paid. He believed that if the Institute resisted this attempt to whittle down fees it would be successful.

A member thought the Institute had been let down by members of the Council without experience of housing.

Mr. W. R. Davidge encouraged the members to combat the proposals.

After considerable discussion a resolution in the following terms was carried unanimously:

"This general meeting declines to alter our scale of charges by approving Memoranda 52 and 51/D, and call upon the Council to repudiate the statement that the Royal Institute of British Architects has agreed to them."

MESSRS. STANLEY-BARRETT & DRIVER, architects, have moved their offices from High Holborn, W.C., to 18 Lower Seymour Street, Wigmore Street, W. The new telephone number is Langham 2489.

THE Huddersfield War Memorial Sub-Committee has approved the design prepared by Sir Charles Nicholson, Bart., F.R.I.B.A., for the memorial to be erected on the terrace in Greenhead Park. It is to be a classical column of Victory surmounted by a sacrificial cross of metal, and the total height will be 100 feet.

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British Archæological Association.

Congress at Lincoln.

LAST year the Congress of the British Archæological Association was held at Shrewsbury, and we learned to pronounce it "Shoesbury," and searched each corner of the old town with its charming old houses, and traversed the hills and dales of that delightful shire.

This year the Council and President wafted us to the city of the fens and the wolds of Lincolnshire, the Caer-Lynn, or Lynn-Dun, or Lindum-Colonia, of the Romans, and there was held the seventy-eighth Congress of this venerable Association, lasting from June 27 to July 2.

Such a city possesses an unbounded field of antiquarian research. Wherever you go or scratch the surface of the ground—at least, six or seven feet deep—you will find Roman tesselated pavements; and above ground there is much to see of fine old churches, Roman remains, grand specimens of the architectural triumphs of all ages, while the greatest and finest cathedral in Great Britain (as most people think) towers and looks down from its lofty elevation upon the city nestling at its foot.

The county also lacks not attractiveness. It is famous for its wide views, its hills and picturesque hollows, and is full of the human interest that clings round old buildings, and the uplifting pleasures which its many splendid specimens of architecture has the power to bestow.

Lincolnshire is also fortunate in its leading antiquaries, amongst whom may be mentioned: Lt.-Colonel E. Mansel Sympson, F.S.A.; Canon Jeans; Sir Hickman Bacon, Bart., F.S.A.; Mr. W. F. Rawnsley; and the active Organising Secretary of the Congress, the Rev. Alfred Hunt. The Association is also fortunate in having a "perpetual" President, Mr. Charles E. Keyser, M.A., F.S.A., who has occupied that position for several years, and takes a keen interest in its welfare and is a generous benefactor of the institution.

The headquarters of the Congress was fixed at the ancient hostelry, the "Saracen's Head," which claims to have been in existence upwards of 600 years and is one of the oldest inns in the Kingdom. It is adjacent to the "Stonebow," on the site of which stood a gate in Roman times. A mediæval gate succeeded the Roman "porta," and the present one dates from the sixteenth century. Its upper chamber is utilised as the Guildhall of the city, and tells the story of the long-continued municipal life of Lincoln, dating back to Roman times.

On Monday, June 27, the members assembled in goodly numbers from various parts of England, and began their peregrinations on

TUESDAY, JUNE 28,

sallying forth at an early hour on a pilgrimage to the Lower City under the guidance of the local secretary, Mr. Hunt, who acted as cicerone and gave lucid descriptions of the places visited. The first place visited was the church of St. Mary-le-Wigford, in the High Street, which has a curious pre-Norman tower built about 970. It is tall and without buttresses, having the Saxon long and short work and the upper two-light window with the mid-wall jamb, with only small and irregularly-placed lights below. It resembles somewhat the towers one sees in Italy at Ravenna and Bologna. With questionable taste a fifteenth-century parapet has been placed on the tower. The pillars of the nave are Early English. On the face of the tower is a Roman memorial to one Bluscius, and above it an Anglo-Saxon dedication. The name "Le Wigford," Wickford, or Wickenford, indicates the suburb on the south of the river. An interesting carved conduit stands outside the church. Some of the stones came from the destroyed Whitefriars House, and Leland, in 1540, described it as new.

The church of St. Peter at Gowts takes its curious name from the "gowts" or sluices which were the two watercourses for taking the waters of the "meres" into the sluices. It is somewhat similar in style to the former church, and has a very similar pre-Norman tower, Early English pier, and the tooled stones at the base are possibly Roman. This tower is remarkable in several points. A small upper stage is set firmly and squarely upon a long tapering lower one, and there is no finer tower in the whole series of Saxon Lincolnshire examples. In the case of St. Mary-le-Wigford the belfry stage is of much the same area as the stage below, causing the tower to look top-heavy; but both towers have abandoned the which can be seen at Barton-on-Humber and are not merely decorative surface-ornament of pilastered strips really architecture. Leaving these two remarkable churches we passed on to

ST. MARY'S GUILD HALL,

known locally as John of Gaunt's Stables, a fine specimen of ancient domestic architecture. Mr. Parker, in his "Domestic Architecture," speaks of it as "probably the most valuable and extensive range of buildings of the twelfth century that we have remaining in England." The building was described by Mr. Watkins, the Lincoln architect, who stated that it was built about 1160. The entrance is through a fine large Norman doorway, the upper arch being of several orders. The palace of John of Gaunt formerly stood opposite. Happily, the oriel window was preserved when the house was destroyed, and removed to the entrance gateway of the castle. The date of the building of St. Mary's Guild Hall makes it impossible for it to have been the stables of John of Gaunt's palace, and Mr. Watkins expressed the opinion that it was the headquarters, technical school, and workshop of the Early English church builders, and compared it with the Opera del Duomo at Florence. We passed on then to

THE HIGH BRIDGE,

a very interesting structure, the earliest arches of which date back to 1160. It is on the line of the old Ermine Street, which here crossed the River Witham by a ford. Like Old London Bridge, it had formerly houses built on both sides of the bridge itself, but now these remain only on one side. That does not affect the statement reported to us that it is the only mediæval bridge in England with shops still upon it. These half-timbered shops were built about 1540, dedicated to St. Thomas of Canterbury. Formerly on the other side there was a bridge-chapel, wherein travellers prayed for safety during their journey, which was served by a bridge-chaplain. Its memory is preserved by an obelisk that was erected about 150 years ago. A visit was then paid—though far too brief—to the City and County Museum, housed in the Greyfriars' Buildings, wherein is stored a good collection of prehistoric, Roman, Saxon, and other antiquities. We also inspected the fifteenth-century half-timbered house in Akrill's Passage, figured in Parker's "Domestic Architecture." It is usually described as the remains of the Whitefriars' Priory, but Mr. Hunt declares that this is an error, and that it is probably part of the vicarage of St. Mary-le-Wigford.

Ascending Steep Hill, the company inspected the interesting Norman building known as Jews' House, and also Aaron's House, the upper window of which has been recently restored.

RECEPTION BY THE MAYOR.

The party then returned up the hill to the Guildhall, where at noon the Worshipful the Mayor, Mr. R. Halker, and some members of the Corporation were waiting to give an official reception of the Association. Many kind words were spoken, to which the President responded, and there was an exhibition of the civic insignia, charters, and documents, of which the city possesses a great store. The insignia was described by Colonel Chambers. Amongst other treasures there is a fine Restoration mace and three civic swords, one of which was presented by Richard II. when he visited Lincoln in 1386. There seems to have been some vandalism about these swords. It appears that the Mayor in 1734 wished to present to the town a grand modern sword of state, and fitted the blade of Richard's sword to his new handle; he mutilated the Charles I. sword given to the city at the beginning of

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the Civil War. Colonel Chambers discovered this piece of gross vandalism in 1900, and rectified the error.

After luncheon at the Saracen's Head the antiquaries departed in motors for

BARDNEY ABBEY,

in the fen country, beloved by monks, as the fens afforded some safety in early times from marauding Danes and other foes. It was a Benedictine monastery, one of the most famous in England. The compiler of the Congress programme suggested that it was possibly founded by King Oswin in 655 A.D. when he vowed twelve manors to found monasteries if the Lord would give him victory over Penda; but some of the chronicles state that Æthelred, the son of the pagan Penda, was the founder, whose wife was the niece of St. Oswald, slain by the heathen monarch of Mercia. The relics of the saint were conveyed to Bardney by her. Slain by the Danes, her body was buried here, and her husband abandoned his crown and became abbot. However, the Danes "did after their kind," burned the monastery, and slew the monks. For 200 years it lay desolate, and then Gilbert de Gaunt, who had accompanied the Conqueror to England and been rewarded with the gift of many rich manors, rebuilt the abbey, richly endowed it, was buried therein in 1094, and left his son Walter to increase his benefactions. Many notable events happened therein, but it shared the fate of other monastic houses, and twelve years ago nothing could be seen on the site save a bare field and a moat. But the late vicar of Bardney, the Rev. C. E. Laing, was an enthusiastic antiquary. He excavated the whole site, and the foundations of the choir and transept show that they were part of the same Norman church which the piety of Gilbert de Gaunt had raised. There was a central tower, and the nave was built later in the thirteenth century, and Mr. Laing discovered the situation of the abbey buildings, many fine tombs, and other treasures, and certainly deserved the support of all who love historic buildings, and their gratitude.

After a refreshing cup of tea in the vicarage garden Bardney Church was inspected, which contains some treasures brought from the Abbey site. We passed on to the charming little church of

ST. LEONARD, KIRKSTEAD,

a gem of Early English architecture. It stands near the once-important Cistercian Abbey of Kirkstead, founded in 1139. The object of this beautiful chapel is not known, but it was probably for the use of pilgrims to the monastery. A few years ago it stood desolate and forlorn, but kind hands have had pity upon the deserted shrine and restored its beauty, and made it to resound with the voice of prayer and praise. In plan it is a simple oblong, 43 feet 6 inches in length by 19 feet 6 inches. It is divided into three bays by vaulting inside and by buttresses outside. At the east end is a triplet of lancets. At the west end there is a richly moulded doorway, enriched with dog's-tooth, and lancets light the nave. At the beginning of the eighteenth-century it was used as a Presbyterian chapel, and was fitted with pews, and an old Jacobean pulpit was set up in front of the east window. A fragment of the earliest wooden screen in the county has been preserved, and there is an effigy in banded mail, one of the five in England, supposed to represent Robert, Lord Tattershall, who died in 1212. He wears the cylindrical helmet with convex top, having two bands crossing in front. It is certainly a matter for congratulation that this superb chapel has been so carefully and conservatively restored.

The company then embarked on the motors and drove back to Lincoln. After dinner the Presidential Address was delivered by Mr. Charles E. Keyser, who, after referring to the history of the Association and its Congresses, took for his subject "The Architectural Details of Lincoln Cathedral." He has been all through his life a keen student of architecture, and there are few churches in the Kingdom which he has not inspected. His lecture was illustrated by an excellent series of lantern views.

WEDNESDAY, JUNE 29.

Modern antiquaries have the advantage of motor transit, and can extend their excursions over a wider range than was possible in the days of our forefathers. Whether that is entirely an advantage we are not so certain, and it is possible that our sires were enabled to examine more thoroughly the places, objects, and buildings they visited. However, the authorities and our guide, Mr. Hunt, had arranged a long excursion for this day of many miles. Starting early at nine o'clock, we set off along the old Roman Ermine Street, and made for Brigg, passing through no place of importance save Kirton-in-Lindsay, and then reached our first stopping-place, Brigg. This is a great road-centre and an interesting little place, and near it is the site of the battle of Brunnenburgh, fought in 937 between Athelstan and Anlaf, when the latter invaded the Humber with 615 vessels. At Brigg was found a large primitive "dug-out" canoe some years ago.

THORNTON CURTIS CHURCH

possesses many interesting features, including the Late Norman font made of black Tournai marble carved with griffins and monsters. The style of the church is principally Early English, with some Norman work. The old door, with its fine ironwork, was pointed out, the clustered piers of the nave, the Jacobean pulpit, and a fine old chest. By the permission of Lord Yarborough a visit was paid to the ruins of Thornton Abbey. Not much is left of the ancient Augustinian foundation originally founded in 1139, subsequently becoming a mitred abbey, its abbot having the dignity of a seat in the House of Lords. We saw a fine gateway of fifteenth-century construction, the central arch flanked by two turrets, and the remains of a beautiful octagonal chapter-house, which must have been a very noble room in the time of its splendour. The whole remains of a once great and powerful abbey is now a pitiful ruin. Even the arch-destroyer Henry VIII., influenced perhaps by good entertainment he received, so admired its buildings that, although he dissolved the abbey, he founded a college of the Holy Trinity in the same building; but this only survived a few years, and was dissolved by the unscrupulous commissioners of Edward VI., and the site was given to the Lincoln bishop Holbeche, who seems to have favoured the iniquitous proceedings of the destroyers. The architecture of the chapter-house is of the best Decorated style.

We then passed on to

BARROW HAVEN,

which was a Viking harbour, and imagination pictured it as full of the vessels of Danish pirates who wrought such evil in our island. Then there are "the Castles," guarded by dykes, which may be the burialplaces of soldiers slain in the great battle of Brunnenburgh, and described in Robert de Brunne's chronicle. It tells how King Anlaf attacked with "700 ships and 15," and how Athelstan and his brother Edward bravely met him and fought from morning till evening, and then

As the last to their ships the King gave them chase
All fled away, that was of God's grace.

We journeyed on and arrived at Barton-on-Humber, and, refreshed by luncheon at the George Hotel, we visited the interesting church of

ST. PETER, BARTON,

with its pre-Conquest tower. Indeed, it claims to be one of the oldest churches in England. Views of the tower often appear in books on architecture, and exhibit that remarkable "stone carpentry" which is a feature of several of our Saxon churches, such as Earls Barton, Brixworth, Barnack, and Wittering, in Northants. The style has been termed "Teutonic Romanesque," and it has been usually attributed to the efforts of Saxon masons to imitate in stone the former wooden towers. This tower has four stages; the first is decorated with semi-circular-headed arcades, the second by triangular-headed arches. "Long and short work" and double-lighted

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openings separated by baluster shafts appear, and the uppermost storey was added in Norman times. The nave is Decorated work, and in the fifteenth century the clergy wanted more light, and placed Perpendicular windows in the clerestory. It would require much space for a full description of this building, but as it is well known to all architectural students a fuller record is perhaps not necessary. The church was a cell of the once-powerful Abbey of Bardney. Passing on to

ST. MARY'S CHURCH,

we find that it was built in Norman times. The north arcade, consisting of five arches, belongs to this period; the south was rebuilt in the Early English period, and has four arches, the piers, consisting of a central column with isolated shafts, eight in number. Of the same period is the tower which has a Perpendicular parapet and a chantry chapel, and much else that is interesting. These churches were well described by the vicar, the Rev. W. E. Varah.

Horkestow Church was next visited. The north arcade is Transition Norman, and the building is remarkable for its sharp rise to the chancel. Broughton is another of the pre-Conquest churches, of which there are several examples in Lincolnshire. In this, as in some other cases, the tower space formed the main area for worship, with a small chancel to the east. There is a western projection which is a turret for a staircase. The present nave was built on Norman foundations, and at the base of two of the pillars the cable moulding is visible. In the sanctuary there is a fine brass of 1380 date, and a good altar tomb with effigies of Sir H. Redford and his wife of the same date.

This concluded our wanderings for the day, and in the evening the Organising Secretary, Mr. Hunt, gave an interesting lecture on "Historic Lincolnshire."

THURSDAY, JUNE 30.

An early start was again made, and we visited the delightful little secluded church of Cotes-by-Stow. It is built of small, rough stones, has a double bell-turret, a tub-shaped font, and one of the most perfect Perpendicular rood screens in existence, with gallery all complete and the staircase. It is seldom that one sees such a fine screen, and the altar-stone is remarkable as having seven inscribed crosses instead of the usual five. The next stopping-place was what Murray calls the "venerable church of St. Mary at Stow, the mother church of the great minster." It is the finest church in the county, save the cathedral itself. Many pages would be required wherein to record its history and its architectural features. The earliest church was burned by the Danes, and traces of the fire can still be seen. The present building is partly pre-Norman, having been begun in 1040. The nave is Early Roman, and the chancel Late Norman, and very little work of later periods has been added. There is a mural painting, much faded, representing the murder of St. Thomas of Canterbury, and three fine Norman doorways. The church was carefully restored by Mr. Pearson in 1864.

By the kind permission of the owner, we had the privilege of visiting

GAINSBOROUGH OLD HALL,

a fine example of fifteenth-century manor house, built of brick and stone about 1480. The ancient hall was burnt down, and dated back to Saxon times. Here King Alfred is said to have married Eathelwitha, daughter of Ethelred, and Canute held his court. The house is a fine specimen of domestic architecture. The south side is timber-framed, and there is a stone-built oriel and a brick tower, a fine central hall, and immense kitchen. Henry VIII. and Katherine Howard were entertained here. It is seldom that one meets with such a charming old baronial building.

Returning to Lincoln, and to lunch at the Saracen's Head, we spent the afternoon in visiting the cathedral under the guidance of Sir Charles Nicholson, Bart., and Dr. Mansel Sympson. The great minster is so well known to architects that there is no need to give a description here of that magnificent pile. The Castle was then stormed under the command of Colonel Mansel Sympson, F.S.A., who is the chief archæologist of the county. His house, Deloraine Court, is a Norman building, and a Norman pier stands in the centre of his drawing-room. Under his expert guidance we were shown the Norman arches and walls and the ruins of the old Bishops' Palace, which fared so hardly when the Parliamentary forces gained possession of the upper tower. It was on this occasion that the cathedral suffered so much at the hands of Puritanism. The troopers tore up all the sepulchral brasses, damaged the carving, and smashed the painted windows, stabling their horses in the nave.

Dean Fry hospitably entertained the members at the Deanery, and in the evening Mr. Hunt favoured the Congress with another lecture, taking as his subject "The Roman Occupation of Lincolnshire."

FRIDAY, JULY 1.

The principal places visited on this day were Boston and Tattershall Castle. The motor coaches awaited us at an early hour, and conveyed us first to

SLEAFORD CHURCH,

which was described by the vicar, Canon Langdon. The town itself has much history, which cannot here be told for lack of space, and the church is a miniature cathedral, dedicated to St. Denys. The lower stage of the tower is Transition Norman, the spire having been rebuilt in modern times. Its chief glory is its western front, which is not surpassed by any in England, and the rood screen is one of the finest in the country. The Decorated windows in the north transept are very beautiful. One would like to linger a long time in this most delightful of churches; but the guide's whistle sounds, and we must hurry on to

HECKINGTON CHURCH,

which is another triumph of Lincolnshire architecture. It is entirely Decorated, and is deemed to be the most perfect in the Kingdom. The vicar, the Rev. C. A. Norris, described its beauties, which owe their magnificence to the monks of Bardney, who built it in 1345, their abbot becoming the rector, in the place of an earlier church. The spire is very lofty and rises from clusters of pinnacles, the nave high and wide, the transept windows are very fine, and none could surpass the beautiful seven-light east window. There is a very remarkable Easter sepulchre of extreme beauty.

After luncheon we journeyed on to

BOSTON,

where an official reception was given by the Mayor, and then the clergyman-in-charge conducted the party round his noble church. "Boston Stump" is of world-wide fame, and rises to a height of 288 feet. St. Botolph is said to have founded a monastery here in 654. The present building is mainly Decorated, and is a very fine example of that style. The vicar pointed out the good woodwork of the stalls and the misericord, which are of exceptional interest. The town required a much longer time than could be spared for an inspection of all its attractive features. Attention was concentrated upon St. Mary's Guild Hall, built in the fifteenth century, which has been much renovated, and Mr. Johnston fully explained the glass of the large window. The old prisons wherein the Pilgrim Fathers were incarcerated were shown. Boston folk have dealt unkindly with their ancient houses and treasures, and have had a mania for pulling down much that was beautiful.

TATTERSHALL CASTLE,

so splendidly saved and restored by the Marquis Curzon, was inspected on the homeward journey, that huge square pile of the most admirable mediæval brickwork in the Kingdom. One trembles to think what might have been its fate if the noble Marquis had not rescued it, and the writer well remembers the riot that nearly took place when the historic mantelpieces were carted away to

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London. However, all is well with the grand old tower now. It was built by Ralph, Lord Cromwell, Lord Treasurer of England in 1433 and succeeding years, and probably William of Wainfleet, Bishop of Winchester, the founder of Magdalen College, Oxford, was the architect. Space forbids an extended notice of the castle or a description of the heraldry of the mantelpieces. The adjoining church was collegiate, and was erected by the same Lord Cromwell who built the Castle, who was also the founder of the picturesque almshouses. After an examination of this group of interesting buildings the return journey was made to Lincoln.

SATURDAY, JULY 2.

On the last day of the Congress the company paid an early farewell to Lincoln and the Saracen's Head, and motored to Somerton Castle and the large earthworks that remain around the fortified dwelling-place, of which only one tower remains. King John of France was a prisoner here in 1359. Claythorpe Church, remarkable for its two naves divided by a geometrical Decorated arcade, was visited, and also Hough-on-the-Hill, the last resting-place of King John, which has a pre-Conquest tower, Early English nave, chancel and aisles of lofty character.

GRANTHAM

was the last place visited, and we lunched at the famous "Angel," a mediæval hostel with a charming stone front, where King John is said to have held his court in 1213. Grantham Church was inspected under the guidance of Canon Hancock. It contains a "chained library," a priest's room, and a pre-Reformation altar in the chapel. There was just time to see the Grammar School where Sir Isaac Newton was educated, and then the company were compelled to disperse to their several homes, having expressed their gratitude to the many Lincolnshire friends who had provided for them such an admirable, if rather arduous, programme, and especially to the Rev. Alfred Hunt for his excellent arrangements. They will long retain happy recollections of the Lincoln Congress.

The University of Liverpool Examination Lists, June 1921.

FACULTY OF ARTS—DEGREE OF B.ARCH.

First Examination.—Astbury, F. N., Barton, H. L., Dewsnup, Sarah J., Minoprio, C. A., Peters, H. A., Shaw, C. C., Wills, T. T.

Second Examination.—Allinson, A., Ashburner, E. H., Bloodworth, C. T., Bridgwater, D. L., Donaldson, R. W., Gorrie, J. C., Jenkins, W. V., Miller, J. H., Owen, J. H. L., Phillips, H. G., Silcock, H. S., Turner, R. H.

Third Examination.—Allen, J. S., Billimoria, H. F., Chatterley, A. O., Chisholm, A. McL., Edwards, W. B., Forshaw, J. H., Fry, E. M., Haswell, P. B., Higham, E. H. H., Hutton, C. H., John, L., Jones, H. H. B., Knight, C. R., Lewis, G. S., Mahon, S. E., Martin, E. W., Owen, G. L., Parry-Jones, J., Prichard, L. A. G., Pritchard, H. W., Raafat, M., Roberts, H., Vallis, R. W. H., Williams, E., Williams, Howard.

Fourth Examination—with Honours in Architectural Design.—Arthur, E. R., Checkley, G., Jones, I. R., Welsh, S.

CERTIFICATE IN ARCHITECTURE.

(*New Regulations.*)

Class I.—Allen, J. S., Billimoria, H. F., Blackett, J., Bridge, E. E., Brooke, D., Chatterley, A. O., Chisholm, A. M., Cornes, E. H., Crowther, J. H., Edwards, W. B., Forshaw, J. H. Fry, E. M., Fryer, E., Haswell, P. B., Higham, E. H. H., Hirst, H., Hutton, C. H., John, L., Jones, H. H. B., Jones, I. R., Jones, R. H., Jones, T. E., Knight, C. R., Lewis, G. S., Lindley, C. J. W., Mahon, S. E., Martin, E. W., Musker, Doris, Owen, G. L., Parry-Jones, J., Prichard, L. A. G., Pritchard, H. W., Raafat, M., Roberts, H., Simms, H. G., Townsend, A. C., Vallis, R. W. H., Williams, E., Williams, Harry, Williams, Howard, Woolley, E. G., Yoxall, T.

FACULTY OF ARTS—DEGREE OF B.ARCH.

(*Old Regulations.*)

Final Examination.—Laksminarasappa, S. H.

DIPLOMA IN ARCHITECTURE.

(*Old Regulations.*)

Butler, B.

DIPLOMA IN CIVIC DESIGN.

Butler, B., Jones, R. D.

CERTIFICATE IN ARCHITECTURE.

(*Old Regulations.*)

Class I.—Beeston, W., Greenfield, W. T., Jones, W. R., Lewis, D. J., Newton, E. A., Salisbury, T., Smith, H. E., Velarde, F., Wesker, S. E. E.

Class II.—Azurdia, C. E., Fisher, M., Havers, R. B., Holt, R. C.

FACULTY OF ARTS—DIPLOMA IN ARCHITECTURE.

First Examination.—Aspland, A., Caul, J. W., Cowley, A. D. R., Dean, R. E. S., Dixon, Doris E., Fitzgerald, Beatrice M., Fox, H. L., Roushdy, M., Silcock, Frances T., Thearle, H., Thomas, G. I., Wall, Maud A. M., Wilkinson, Sheelah, A., Zwinger, L. G.

Second Examination.—Bradshaw, D., Debert, Doris D., Douglas, G. C., Edwards, C. G., Ehrhardt, G. E. S., Furbur, J. R., Howitt, L. C., Nuttall, O. H. H., Oversby, Doris, Priestly, C. J., Taylor, J. M., el Wahhaby, I. I.

Third Examination.—Blackett, J., Bridge, E. E., Brooke, D., Cornes, E. H., Crowther, J. H., Fryer, E., Hirst, H., Jones, R. H., Jones, T. E., Lindley, C. J. W., Musker, Doris, Simms, H G., Townsend, A. C., Williams, Harry, Woolley, E. G., Yoxall, T.

Fourth Examination—with Distinction in Architectural Design.—Elsworth, W.

"The Architect" Fifty Years Ago.

JULY 8, 1871.

BLACKBURN LIBRARY COMPETITION.

So far, therefore, it is not to be wondered at that, in the language of an advertisement in our Journal, "The Committee of the Blackburn Free Library are prepared to receive Designs for a new Building," offering "a Premium of £50 for the Design which they may consider the most suitable," such Design, with "the Specification accompanying the same," to be their property—but always provided that "in the event of the author of the Design being appointed to carry out the work the Premium will be merged in his commission."

Now the Blackburn men are proud enough, no doubt, of their character for knowing a bargain when they see it; but this pride, we may equally venture to say, takes its stand upon a thorough consciousness that no bargain can be a good bargain which is not a fairly understandable one, and a fairly honest one, and that whenever the risk seemed to be too much on one side it behoves the other to be all the more careful. We may also take leave to suggest that it is not usual in Blackburn for a number of men of business to spend twelve hundred pounds in money (besides infinite trouble) in competing against each other for an "order" which at the utmost cannot amount to more than half the money, and upon which it would take a very large scale of profit indeed to tell up to two hundred and fifty pounds hardly earned after paying out-of-pocket expenses. And, finally, we may ask, supposing a Blackburn man to come across the offer of such an absurd transaction in his own business, what would he say? That the proposal should be for himself to be one of the suicidal competitors we will not ask him to imagine possible; but if forty other persons were to come into his counting-house and offer for his benefit to engage in such wild rivalry, what would he say? It is useless to elaborate the reply with rhetoric: but if honest Blackburn did not button up his pockets on the instant, and send furtively for the police, we are very much mistaken indeed. His phraseology might not be coarse—even his civility might be extreme—but the sooner he saw the back of such ludicrous customers the sooner would he breathe freely. A bargain so excessively advantageous, he would reflect, is one which he would very much rather decline.

AT the annual general meeting of the Walpole Society for promoting the study and appreciation of British art, at Burlington House, Lord Bathurst, who presided in the absence of Lord Lytton, congratulated the Society on the satisfactory condition of its finances and the steady increase in its membership. The nine retiring members of the Council, Messrs. J. L. Caw, S. C. Cockerell, A. J. Finberg, the Hon. Neville Lytton, Sir Frank Short, R.A., Messrs. M. H. Spielmann, W. G. P. Townsend, and Sidney Vacher, and Sir H. F. Wilson, were re-elected.

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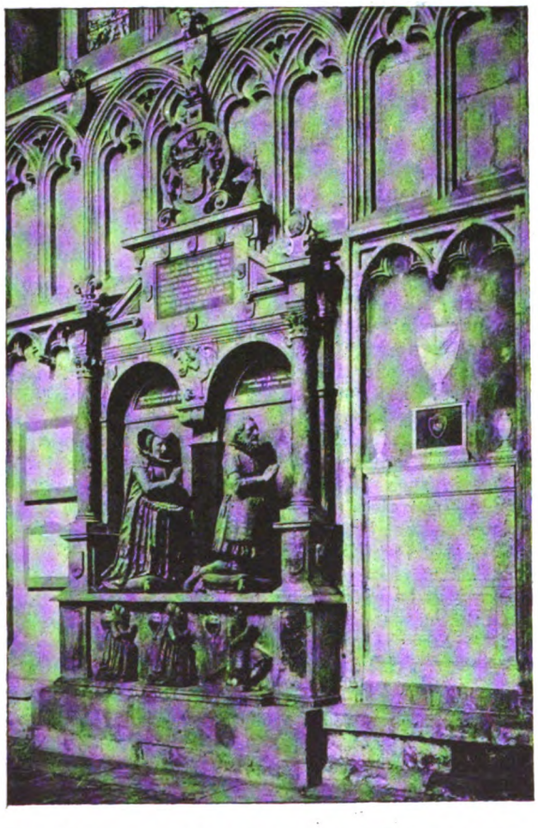
Studies of the English Sculptors from Pierce to Chantrey.

II. Nicholas Stone (1587-1647).

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Our knowledge of Nicholas Stone, even to the date of his birth, has been put on a firm footing by the publication of his Note-book and Account-book by the Walpole Society, and it might seem vain, if not impertinent, to say more about him were it not for the fact that we are here concerned not with a catalogue of his works but with his style. In Stone we see the summing-up of a past era, the prophecy of another, and any study of English post-Restoration sculptors would be incomplete without a chapter on his work, a chapter which could never have been written but for the Walpole Society's volume, and which could not easily have been illustrated but for their generosity in permitting the use of some of their blocks.

Stone was a Devonshire man, and, after an apprenticeship of two years to one Isaac James, went to Amsterdam with Henrik de Keyser, who had been in London to study the design of the Royal Exchange, and pleased his master so much that he married him to his daughter in 1613, after which young Stone returned to London with his wife and took the premises in Long Acre which he occupied till his death. Next year he erected an important monument to the tenth Earl of Ormond, which brought him £230, but it was destroyed in the Irish Rebellion; from that time onwards his popularity as a sculptor was uninterrupted until the Civil War. He executed work for James I. at all the royal palaces; in 1626 he was appointed "Master Mason and Architect" at Windsor by Charles I., and thenceforward his history must be traced in Mr. Spiers' pages. Here we can only note that hardly a district of England is without some example of his work, which ranged from the construction of Inigo Jones's portico for St. Paul's in 1633 to the construction of "chemneypeces of Portland ston" for Kirby Hall,



Mural Monument to Sir Henry and Lady Belasyse in York Minster (1615-16). From the Walpole Society's Monograph on Nicholas Stone.

that noble and now desolate monument of English palatial architecture, in 1639, thus foreshadowing what we shall have occasion to note so often—the anomalous position of the English sculptor of the seventeenth and eighteenth centuries, who combined the functions of architect, monumental mason and master-sculptor, and had under him a school of pupils who assisted him in every department from the making of mantelpieces to the mending of works of art.

Stone's work falls into several classes, in which two main divisions, the English and the Italianate, may readily be traced. He never travelled beyond Holland, though his second son Nicholas went to France and Italy, and interviewed the great Bernini. It is, therefore, natural that much of his work should be purely English in character. What is much more puzzling is the curious fact that date is in his case no clue to style.

Our first illustration shows a typically English work in the tradition of the English alabaster masters, representing Sir Henry and Lady Belasyse (1615-16) in York Minster, in which the principal figures kneel in niches, with their children ranged in relief below, the latter an arrangement repeated as late as Cibber and Bushnell. Our second, of which only the kneeling figure yet remains, represents Henry Howard, Earl of Northampton, now in the chapel of Trinity Hospital, Greenwich, who originally knelt upon a canopy surmounting a fine marble sarcophagus, with allegorical figures at the four corners, both sarcophagus and figures being features widely used by earlier English sculptors, a good example of the former being the Dacre tomb in Old Chelsea Church. The date of Stone's monument is 1615, a fact which shows the truth of the remark that style is in the case of this sculptor no criterion of date. Our third illustration shows a tomb erected to Lord Knevett and his wife in St. Mary's, Stanwell, in 1623, and here, if the English tradition is shown in the kneeling effigies, the curtains of variegated marble hanging from a canopy supported on a straight entablature with a broken pediment, the stately sarcophagus below, and the finely sculptured swags, are in the full-blown style of the later Renaissance, and suggest the work of far later sculptors. One might multiply examples of these styles almost *ad infinitum*. Now we have the dramatic monument to Francis Holles in Westminster Abbey, with its marked suggestion of Michael Angelo; now that to Sir George Holles, its neighbour, which, in its classical costume and supporting female figures, prophesies of Bird and Rysbrack; now the Berninesque angels of Lady Knatchbull's tomb at Mersham, or the bending mourners of the Lyttelton tablet at Magdalen, which speak of Nollekens and Flaxman. Here Dudley Carleton reclines upon his elbow in the manner of his neighbour in the Abbey, Sir Cloudesley Shovel; here allegorical figures of the Cardinal Virtues surround the pillar monument of Lady Digges at Chilham; here the noble altar-tomb of Lady Carey at Stowe, Northants, seems to proclaim the hand of Bernini himself. Its closest English parallel is the beautiful tomb of Anne, wife of Lord Bruce of Kinlosse, dated 1627, in the wonderful little church of Exton, Rutland. Most curious of all, perhaps, is that many-storeyed monument to Thomas Sutton in the Charterhouse, which should be familiar to all Londoners, with its allegories of Charity and Time, of Youth and Age, its singular bas-relief representing the Master (?) preaching to the Poor Brethren of Sutton's great foundation, its stately soldiers, and all the architectural panoply of clustered columns, which in character if not in detail suggests the stateliest monuments of the eighteenth century

Stone, in short, is a transition figure of commanding interest, to whose work the famous lines of Waller may fitly be applied:—

> "Leaving the old, two worlds at once we view,
> That stand upon the threshold of the new."

His son, John Stone, carried on the same varying tradition, and even his most unsuccessful inventions, such as the Sir Edward Spencer at Great Brington, whose bust rises from an urn flanked by the pillars of Truth and

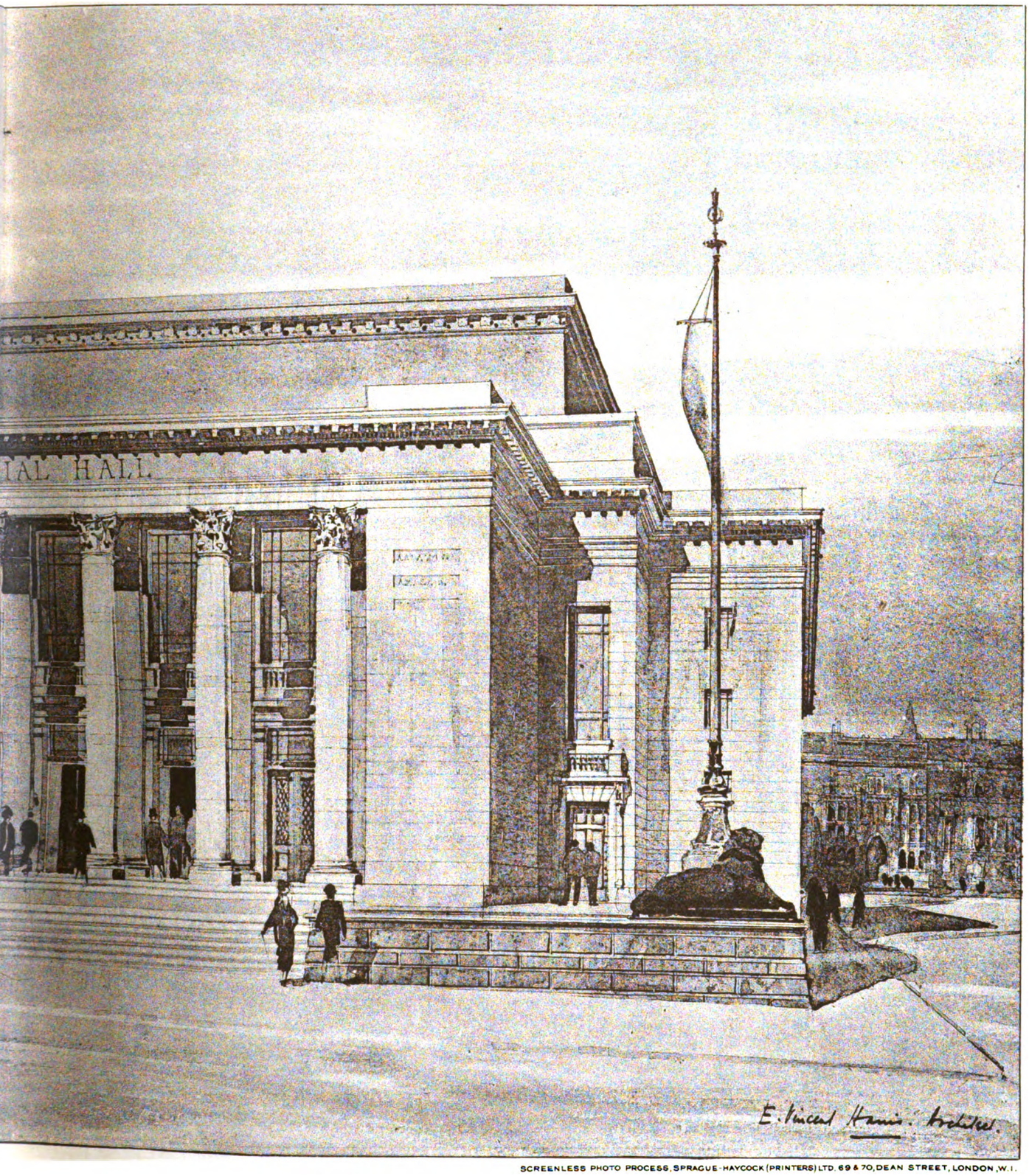
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WAR MEMORIAL
E. VINCENT HARRIS

Royal Academy Exhibition, 1921.

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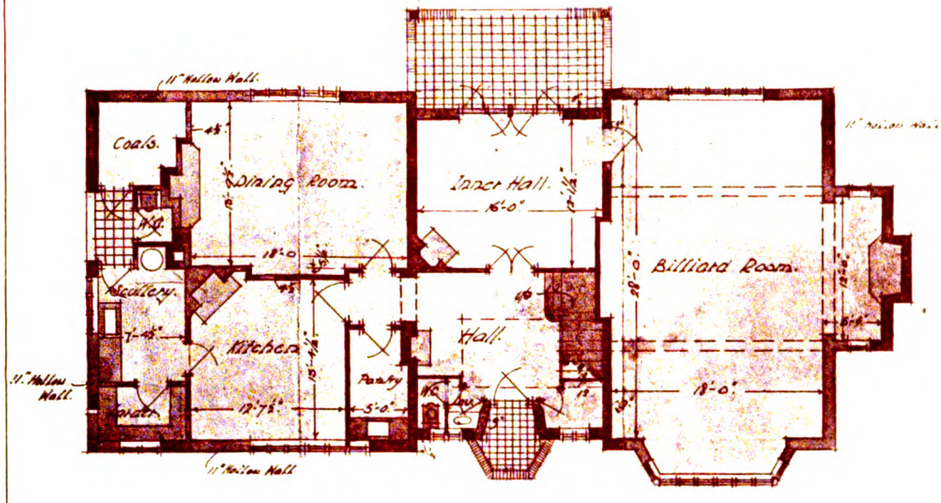
LL, SHEFFIELD.

R.I.B.A., ARCHITECT.

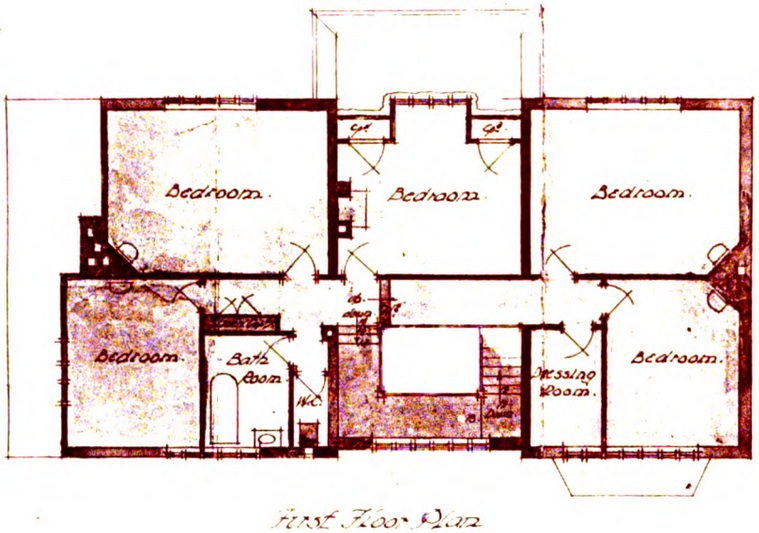
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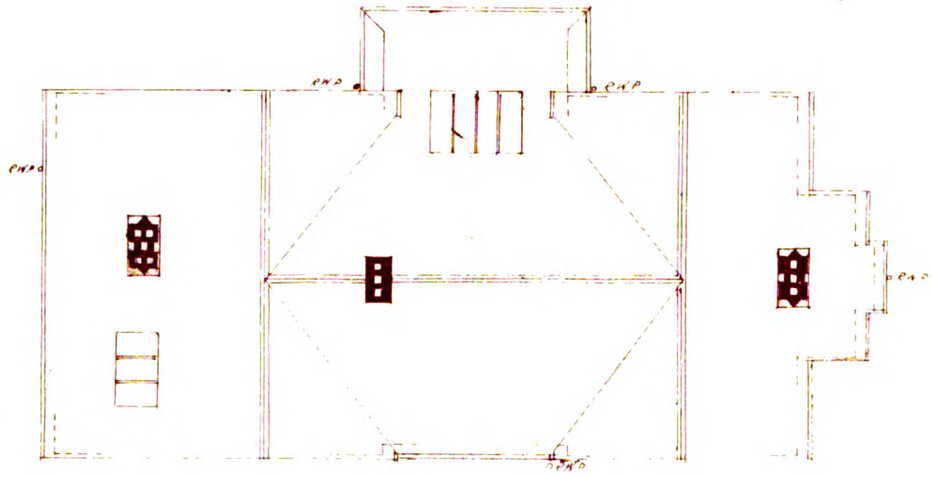
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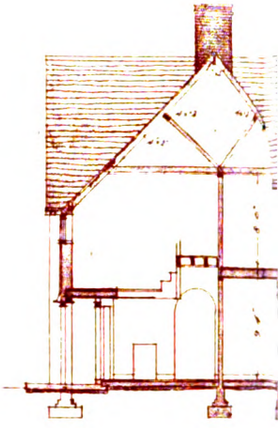
Ground Floor Plan.



First Floor Plan



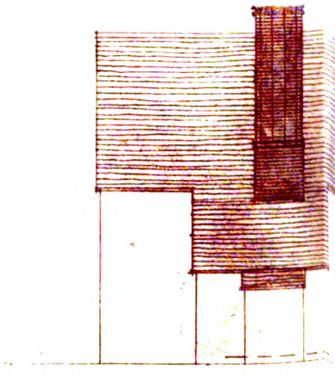
Roof Plan



Transverse

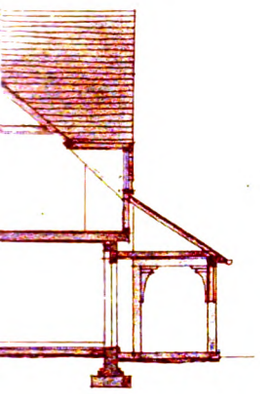


North

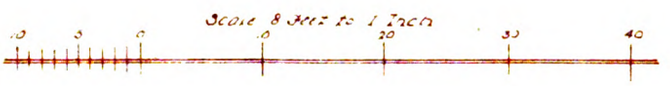


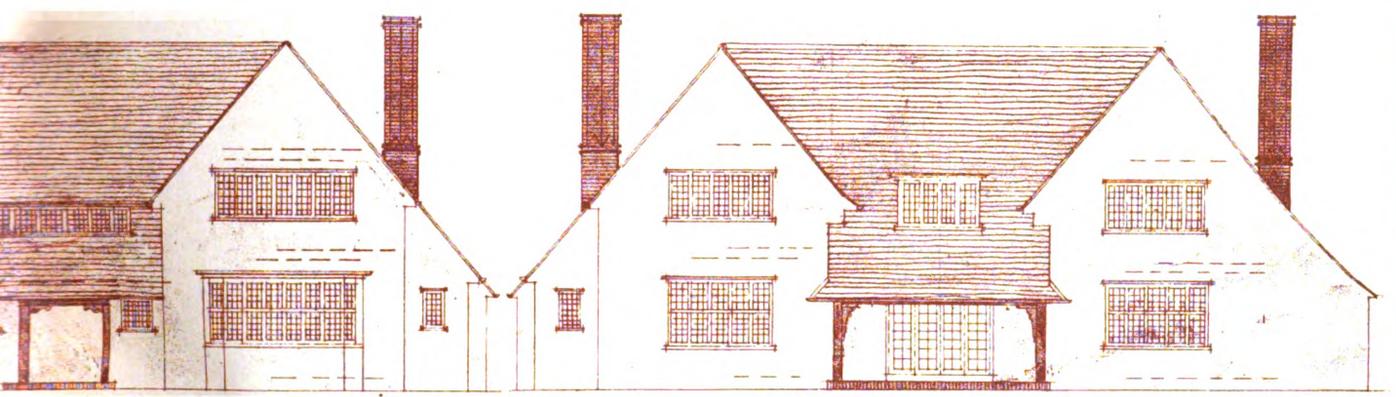
West Elev

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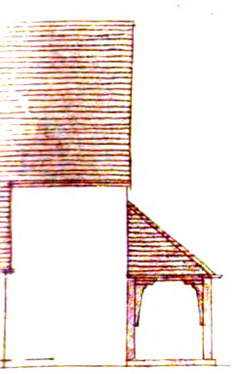
Section



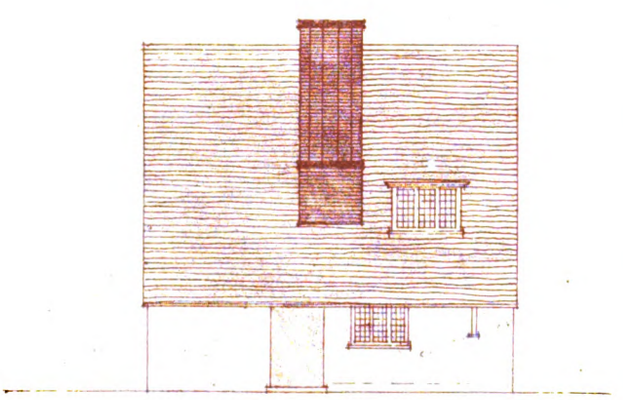


Elevation.

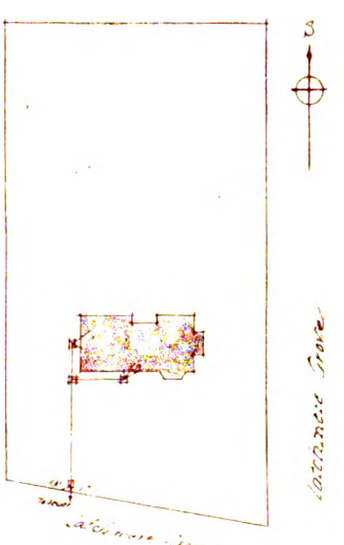
South Elevation.



...on.



East Elevation.



Block Plan

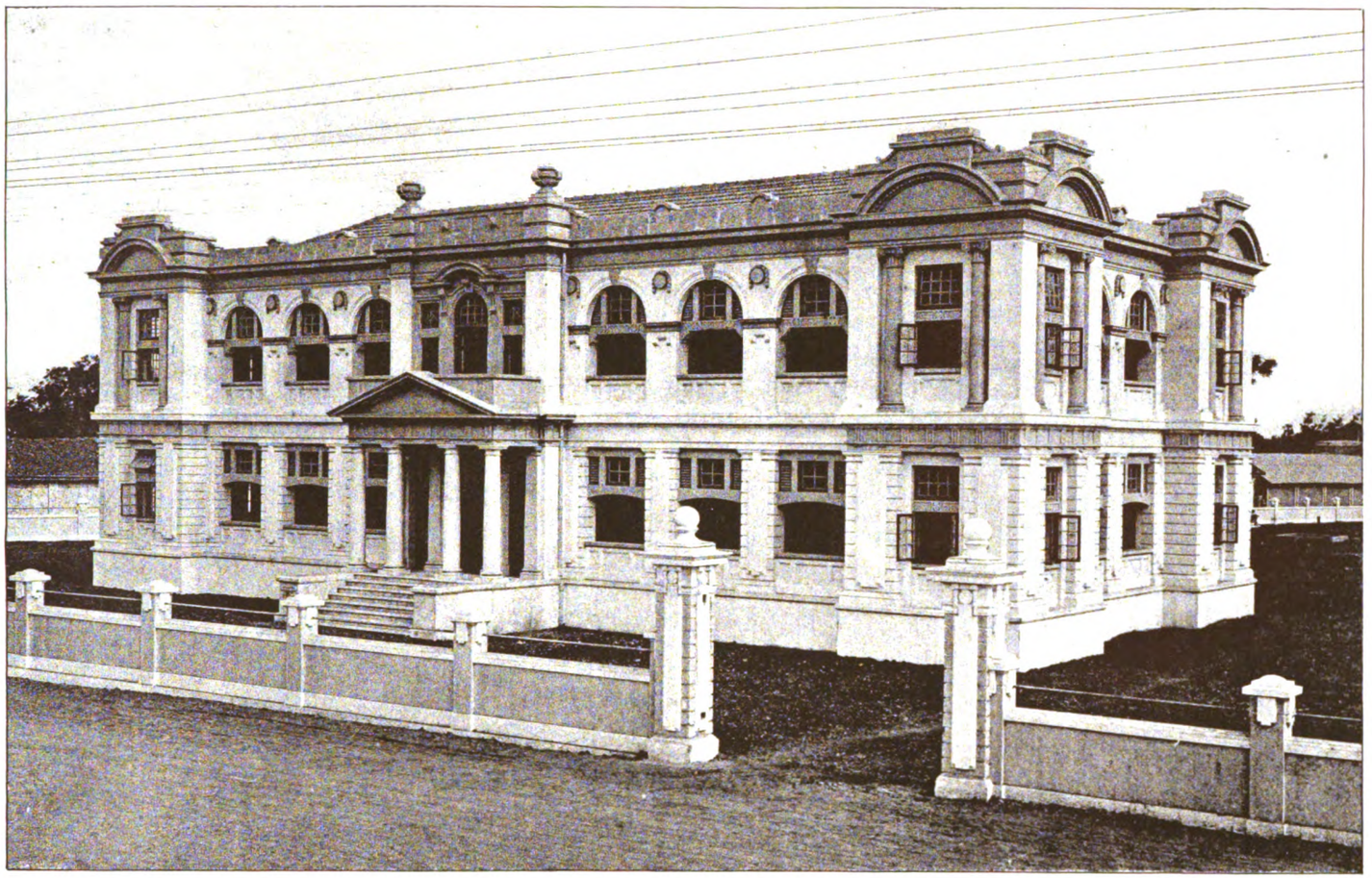
Messrs. [illegible]
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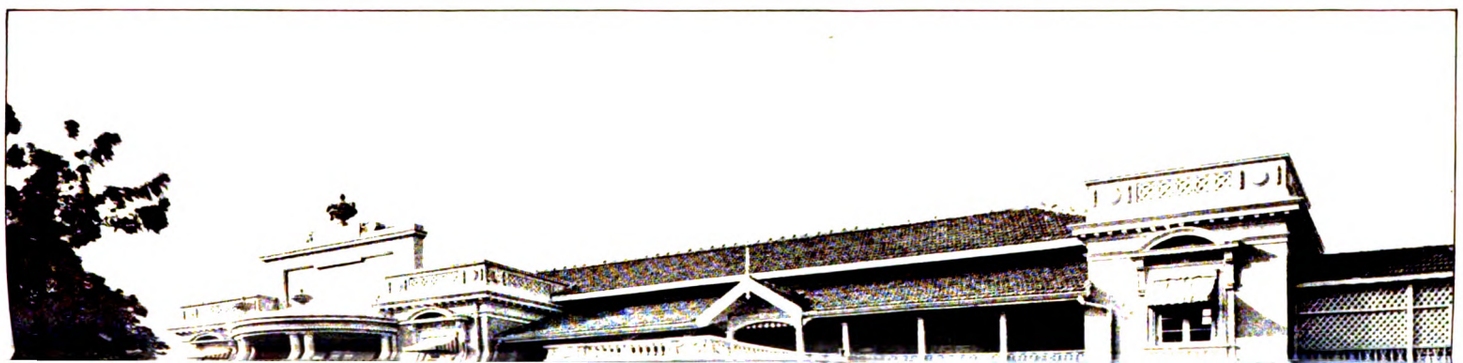
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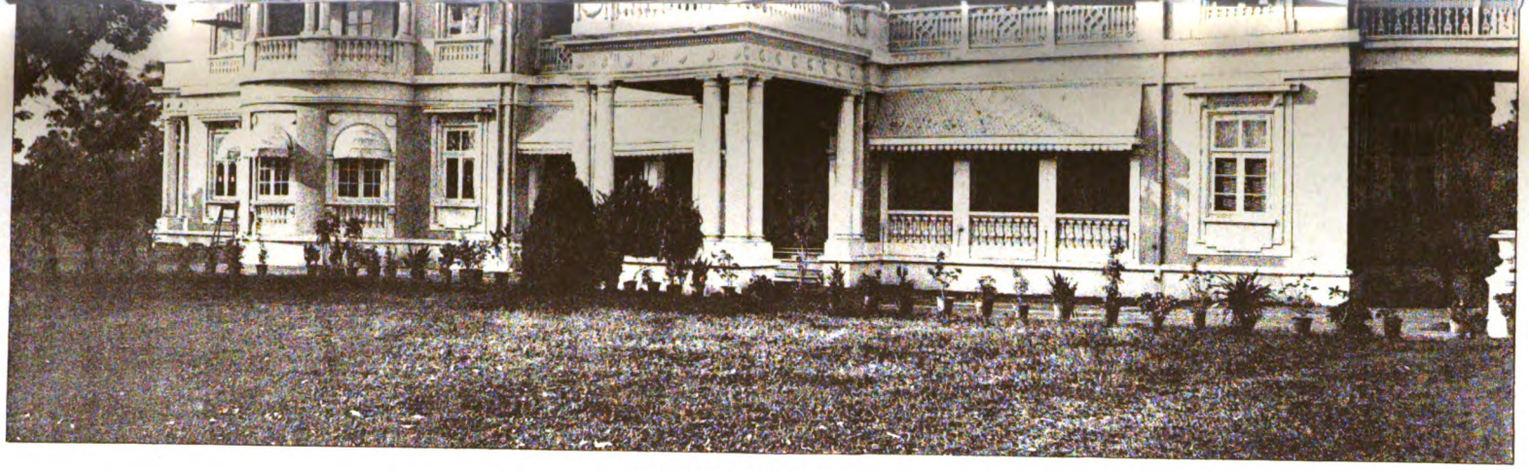
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VIJAYA PALACE. NANDOD.



VIJAYA PALACE. NANDOD.

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MODERN INDIAN ARCHITECTURE.

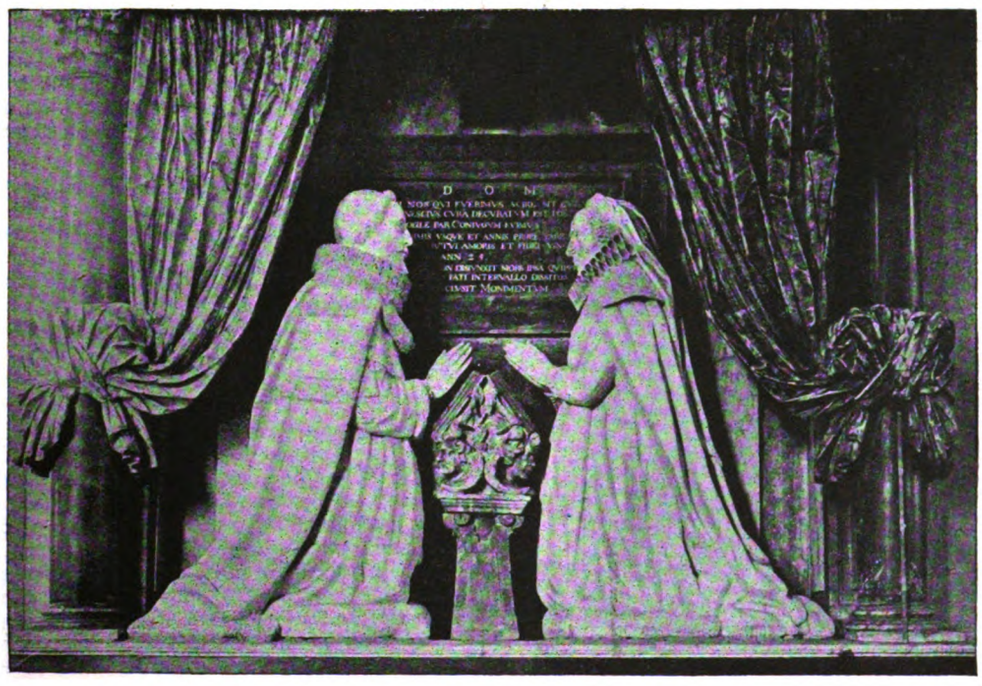
SHAPOORJEE N. CHANDABHOY, F.R.I.B.A., ARCHITECT.

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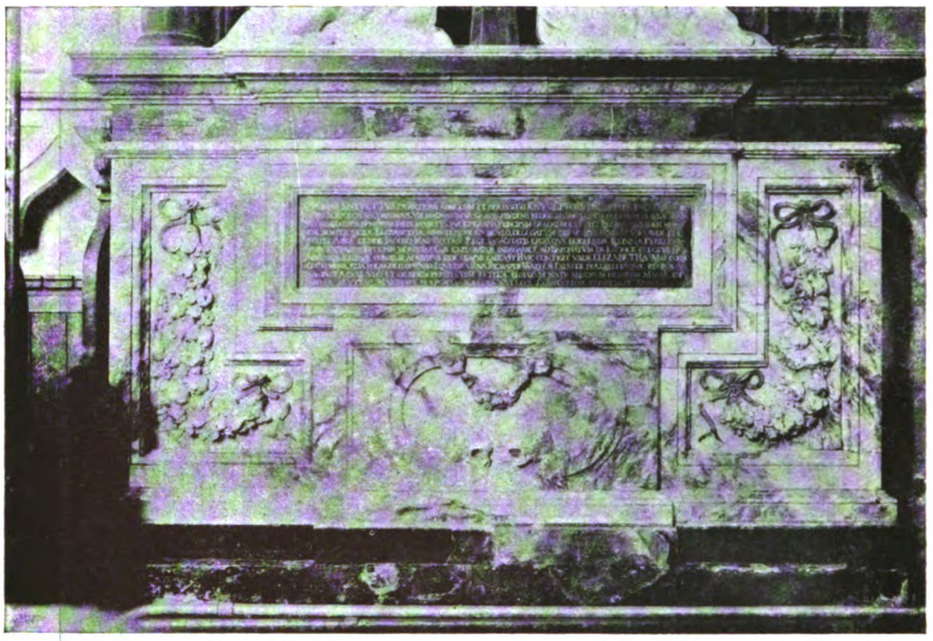


Effigy of Henry Howard, Earl of Northampton, now in the Chapel of Trinity Hospital, Greenwich (1615). From the Walpole Society's Monograph on Nicholas Stone.



Mural Monument to Thomas, Lord Knyvett, and his Wife in St. Mary's Church, Stanwell, Middlesex (1623). From the Walpole Society's Monograph on Nicholas Stone

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Sarcophagus (below figures) of Mural Monument to Thomas, Lord Knyvett, and Wife, in Stanwell Church.
From the Walpole Society's Monograph on Nicholas Stone.

the Word of God, found imitators; in that very county, indeed, John Bushnell repeated the conception towards the end of the century.

Architect as well as sculptor, in that he created the famous porch of St. Mary's, Oxford; master-mason in that, under Inigo Jones, he erected the gateway of the Botanical Gardens there, and the portico of Old St. Paul's to which Waller promised an immortality that lasted but the three and thirty years to the Great Fire, master-mason in that he supplied mantelpieces to Kirby, he stands at the head of our period and prophesies of Pierce and Cibber, who built churches as well as carving statues; of Bird and Gibbons, who won their laurels first as Wren's assistants; and of Scheemakers and Rysbrack, who adorned the buildings of Stowe erected to house the statues they created, and of each and all of them as a master of "the storied urn and animated bust" on which their posthumous fame in most cases depends.



Mural Tablet to Anne Bennet in York Minster (1615-16).
From the Walpole Society's Monograph on Nicholas Stone.

Mr. R. P. Notley, F.R.I.B.A., F.S.I., died on July 2, aged eighty-two, at 92 Upper Clapton Road, N.E. The deceased was for many years a district surveyor in North London.

The exhibition of architectural drawings by members of the Liverpool School of Architecture, which was held last week at the Walker Art Gallery, Liverpool, is being continued for a further week, and will not close until the 9th inst.

The death has occurred, in his eighty-first year, of Mr. M. Monro, F.R.I.B.A., architect, of Glasgow. Apprenticed to Mr. John Henderson, Edinburgh, he served with architects there and in London, and after three years with the late Mr. Spence in Glasgow he started business in 1868, and continued actively until two years ago. A Past President of the Glasgow Institute of Architects, and for two years a member of Council of the Royal Institute, he carried on an extensive practice in domestic and commercial work. In 1903 he took his son into partnership.

The York War Memorial Committee recommend the adoption of a design for a monument which has been prepared by Sir Edwin Lutyens, R.A. His proposal is the Great War Stone, with the inscription, "Their name liveth for evermore," as is being erected throughout our cemeteries abroad—carried on a great podium, which will have wreaths on its ends, and the Arms of York on its face, with the dedication: "To the brave men of York City, 1914-1919." The site selected is the rampart between Lendal Bridge and the archway between Rougier Street and Leeman Road.

The drop in the price of building materials in London is shown in a return issued on Saturday. The latest figures are for May this year, and compared with February 1920, there are twenty-two which show a decrease and sixteen which show increases. Bricks have gone up by 12.8 per cent. and 23.3 per cent. according to make, Portland cement 11.4 per cent., lime 22.9 per cent. and 29.4 per cent., tiles 14.8 per cent., Portland stone 16.7 per cent., York stone 32.2 per cent., and plaster 20.4 per cent. The largest decrease is in raw linseed oil, 71 per cent., with boiled linseed oil 69.3 per cent. down. Other reductions are lead (sheet) 43 per cent., lead (pipe) 39.3 per cent., glass 23.5 per cent., baths 22.6 per cent., closets 28.8 per cent., white lead 31.4 per cent., red lead 39.8 per cent., linseed-oil putty 39.2 per cent., and turpentine 51 per cent.

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The Cholmeley Memorial Tablet.

THIS war memorial tablet has been erected on the south wall of the nave in Stoke Rochford Church, near Grantham, to the memory of seven descendants of Sir Hugh Cholmeley, of Easton, Lincolnshire, Stoke Rochford being the church for the two adjoining estates of the Turnor and Cholmeley families.

The tablet, illustrated from a photograph by Mr. Baldry, Lincoln, is of classic design, and of beautiful coloured English alabaster, standing about six feet high and three feet broad, and set out, masoned, and sculptured in its entirety in Lincoln by Messrs. M. Tuttell and Son, fine art sculptors.

The complete work is supported by two shaped brackets, on which stand the moulded frieze bearing the text in gilded letters "Death is swallowed up in victory." From this frieze or shelf rise two turned and polished black Ashburton (Devonshire) marble columns, surmounted with Corinthian capitals; these carrying another frieze, on which, carved out of the solid in relief, bears a ribbon on which is the motto "Cassis Tutissima Virtus."

Above this is a pediment, the centre space being occupied with a scroll shield cut out of the solid in pure white English alabaster (a very difficult material to obtain). On this is presented the arms of the family, viz.: two helmets and a sheaf of corn, and topmost, as if in defiance of all, we see the griffin with golden beak, wings, and claws, holding in the latter the helmet of safety, silvered the same as the two on the coat of arms.

The inscription, bearing the names of the seven members of the Cholmeley family, has been incised and coloured a delicate tint in red, in harmony with the light and dark browns of the polished alabaster surround. The actual lettered panel being of statuary marble.

In addition to the seven Cholmeleys whose names appear on the tablet, three others served in the Great War 1914-19, two of whom were severely wounded, and the third was invalided home after service on the Gallipoli peninsula. They were all descendants of Montague Cholmeley (who died in 1803), of Easton, which has been the family seat since the sixteenth century.

Ministry of Health and L.C.C. Housing.

THE Housing Committee of the London County Council have prepared a report for the Council respecting the developments of the Becontree estate. The Ministry of Health had intimated that they were not prepared to agree at present to the expenditure on any works or in preparing for any works other than those required for the Ilford section of the estate. The Council sent a deputation to the Minister of Health, who informed them that there was no possibility of the development of Becontree being carried out in its entirety under the present scheme of State aid.

The Ministry, in a letter to the Council, state that—"It is necessary in the present financial conditions to reduce the number of houses to be erected under the present scheme of assistance to local authorities and public utility societies. The extent of the reduction is now being considered by the Government, and when it is decided the whole situation will be reviewed and the special needs of London will be borne in mind as far as possible.

"In the Minister's judgment it will not be possible to develop the Becontree estate to the extent which was contemplated, and he cannot agree to any expenditure, to be charged to the assisted housing account, on any proposals for a sewerage scheme for the whole estate.

"As soon as the Government has made its decision and the case of London has been reviewed by the Department, the Minister proposes that an informal Committee of representatives of the Ministry and the County Council should meet and determine where it is most advantageous that any additional houses, for which provision can be made, should be erected.

"The County Council are not to suffer financially in respect of any commitments entered into with the express approval of the Ministry in connection with their housing schemes, subject, of course, to the exercise by them of due diligence and care, and to the use or disposal to the satisfaction of the Ministry of any assets acquired for housing, but not used for that purpose.

"The new arrangement made with the County Council will supersede the previous arrangement, under which the erection of a total of 29,000 dwellings was contemplated.

"The County Council will appreciate that, as stated by the Minister to the deputation, he deeply regrets that it has become necessary to reduce the housing programme severely, but the financial position of the country leaves the Government no option in the matter, and it is imperative for the national well-being to exercise the fullest measure of economy that is reasonably practicable."

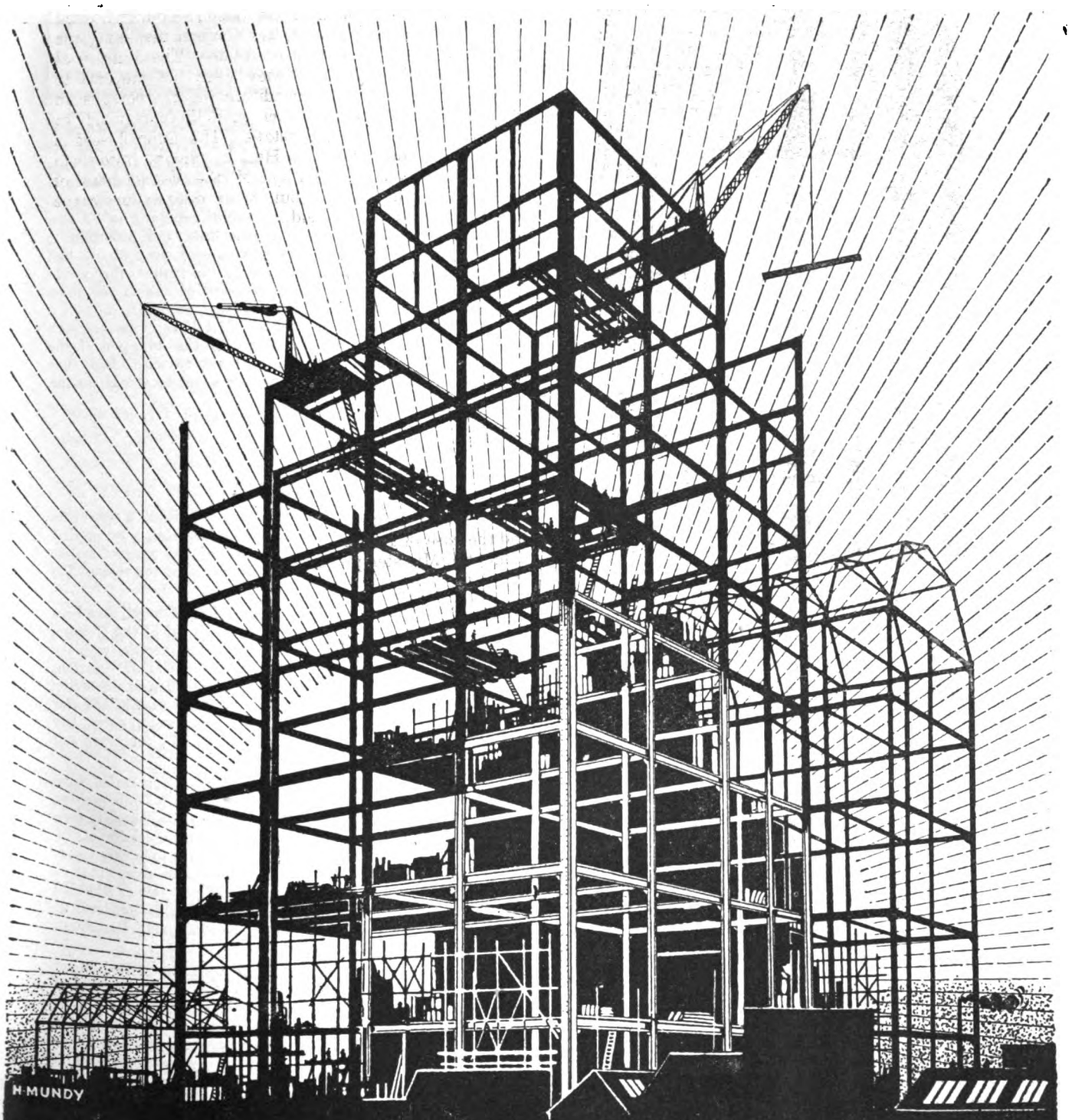
The Ministry has asked the L.C.C. for a further conference on the matter.

After having shown an annual profit of from £6,000 to £15,000 during the years 1913 to 1918, it was this week reported to the London County Council that the non-assisted housing schemes of the Council showed a deficiency of £7,889 for the year 1920-21. The Finance Committee attributed this deficiency mainly to the general increase under all heads of working expenses.

Consideration of the Council's Housing Estimates for the year 1921-22 was complicated on Tuesday last by the receipt of the letter from the Ministry of Health, which we give above.

The obvious result of this communication was that the Council's Housing Estimate of five and a-quarter millions on capital account, submitted for approval in respect of the year 1921-22, would probably never be spent. The Council discussed at length the position so created. The accusation was freely made against the Government that for political purposes it was crippling housing projects regardless of the inconvenience which the public was suffering.

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Mr. Gosling, from the Labour Bench, asked if it was good business from the standpoint of public health to leave houses unbuilt? In his opinion the Government should be informed that the Council disagreed with the policy of the Minister of Health. He therefore moved: "That the Council is of opinion that the contemplated action of the Minister of Health, announced in the letter from his department dated June 21, 1921, of reducing the measure of Government assistance for housing is a breach of faith on the part of the Government and a grave injury to the people of London, and that this resolution be communicated to the Prime Minister and the Minister of Health."

Lord Eustace Percy said that true economy and social reform lay in the direction of suspension of part of the Council's schemes until the subsidised guarantee which had been given to the building industry ceased to have its effect in "boosting" up prices. All members of the Labour Party whom the Government had consulted were agreed that by the year 1927 building by private enterprise must be a profitable thing.

Mr. Edwin Evans said that ninety per cent. of the present cost of building houses was absorbed by labour, both in actual erection and production of building materials. Moreover, the output of the workman was less by one-third than before the war. That meant that contractors were paying double wages for two-thirds of the work.

Colonel Freemantle, M.P., chairman of the Housing Committee, resisted Mr. Gosling's motion, and said that in his opinion the bulk of the housing in this country should be left to private enterprise. He hoped private builders would meet together and approach the Government with their proposals for meeting the present difficulty.

The Housing Committee's Estimate of £5,250,000 was ultimately adopted with the following rider: "and that it be referred to the Finance and Housing Committees to consider and report as to what reduction can be effected in this vote as the result of the recent alterations in and restriction of the Council's housing programme." Mr. Gosling's motion was defeated.

Eastwoods, Limited.

THE first annual general meeting of the above company was held at Winchester House, Old Broad Street, E.C., on Monday, the 4th inst. It is just over a century since the original Eastwoods was established. The present company did not acquire full possession of all its very considerable property till July 1920. Indeed, the year's trading, which has resulted in the payment of a dividend of 12½ per cent., represents really about eight months' work, and is, therefore, of a remarkably satisfactory character.

At the meeting on Monday, the chairman, Dr. T. Cato Worsfold, M.P., stated that during the year they made no less than 60 million bricks in addition to 40 millions purchased from the Receiver; and of this number nearly 61 millions had been loaded for delivery, whilst the majority of those still on hand were under contract for delivery.

When they acquired the property it meant the taking over of some nine different brickfields and fourteen wharves and depôts for their merchant-builders' business, all in different parts of different counties. The brickfields were spread over considerable areas, there being one at Shoeburyness, in Essex, four in Kent, one in Bedfordshire, and two in the Peterborough district; and in connection with this he pointed out that the company occupied two distinct areas of supply for its brick industry—that was to say, the manufacture of the stock brick and the Fletton brick. The majority of the works were equipped with complete engineers', plasterers', and carpenters' shops, thus enabling the company to carry out their repairs on their own premises. The merchant-builders' business comprised practically every material required in the building trade, such as stock and Fletton bricks, fire-bricks, glazed bricks, sanitary goods, pipes, tiles, chimney pots, slates, concrete slabs, &c., and the business in these articles was carried on at the company's principal wharf in Lambeth, and also at Wandsworth, Isleworth, Teddington, Mortlake, Weybridge, Kent Road, S.E., Wembley, Kingsland, Catford, Letchworth, Southend, Finchley, and Greenwich.

At Yaxley, arrangements had been made whereby the output of bricks would be increased by at least some 2½ millions a year; at Shoeburyness the necessary plant had been purchased, on the advice of their technical director, Mr. Horace Boot, and they hoped this would add to their output by a similar quantity; while at Otterham they anticipated adding another 1¼ million bricks yearly to their selling stock by improvements in manufacture. Similar improvements were in hand at Halstow, Conyers, Teynham, and Frognall.

Dealing with the balance sheet, Dr. Cato Worsfold observed that to be able to declare a dividend of 12½ per cent. for the first year was a matter on which he thought they must all congratulate themselves. There was no debenture-holders' interest, while, on the other side, no sum was included for the goodwill of this ancient company in its new form, clearly showing that, if the care and attention to detail with which its first and successful year of life had been achieved were but carried out in the future, they would continue to be the fortunate possessors of one of the finest industrial undertakings in the country.

Mr. Horace Boot, M.I.Mech.E., M.I.E.E. (vice-chairman and technical director), in seconding the adoption of the report, said that the directors had every reason to hope that they would have a first-class balance sheet to submit to the shareholders next year.

The motion was unanimously agreed to.

General.

THE Somerset County Council has appointed a committee "to consider and to report upon the desirability of employing a whole-time architect, instead of the present system of employing architects in private practice for commission or otherwise."

THE surveyor of the Bolsover Urban Council has been instructed to accept, subject to the approval of the Housing Commissioner, the following tenders in connection with the Moorfield Lane housing scheme No. 1: Mr. J. Searston, Sutton-in-Ashfield, for the erection of 138 houses, including preliminary items, at the inclusive sum of £97,633, for screens £142, for drainage £7,123, for posts, gates, and fencing £1,441 2s.; Messrs. Hodson, Ltd., for roads and sewers at the sum of £4,421.

THE Housing Committee of the Bath Corporation have received seventeen tenders for the erection of ninety-seven pairs of houses on the Englishcombe Lane site, but only four of the tenderers were prepared to undertake the whole of the work, the others tendering for two pairs to twenty pairs. It was agreed to recommend the Council to accept that of Messrs. J. Long & Sons, Ltd., at £1,490 per pair or £144,530 for the ninety-seven pairs; an Evesham builder tendered at £157,140; a Devizes firm at £160,826, and Peasedown builders at £166,840.

IN the House of Commons last week Sir Alfred Mond (Minister of Health) said that up to May 31, £3,123,000 had been paid in grants to private builders in respect of 14,515 houses completed in England and Wales. Proposals for the erection of 16,349 further houses, including grants amounting to £4,369,000, had been approved of by local authorities, subject to the Housing Bill now before Parliament becoming law. He had no doubt that a considerable number of additional houses would be built by private builders under the subsidy scheme, besides those being built by the local authorities, but he could not at present say how far the shortage would be overtaken.

THE death has occurred of Sir Herbert Henry Bartlett, for many years chairman and governing director of Messrs. Perry & Co. (Bow), Ltd., engineers and contractors, with whom he was associated for fifty-nine years. The firm is being carried on, with his son, Robert Dudley Bartlett, as managing director. Sir Herbert was three times Master of the Worshipful Company of Pattenmakers. He was well known to many architects, and his tremendous interest in architectural education is evidenced by the princely gift of £30,000 for the foundation of the Bartlett School of Architecture in the University of London. Sir Herbert was born in 1842 at Hardington-Mandeville, Somerset. He leaves a widow, four sons, and three daughters. His successor in the baronetcy is his grandson, Basil Hardington Bartlett, who is fifteen years of age. He is the son of Hardington Arthur Bartlett, late managing director of Messrs. Perry & Co. (Bow), Ltd., who was swept overboard from the Belgian steamer *Pieter de Kuenick* in January 1920 during a heavy gale.

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What Shall it Profit an Architect if he be Registered?

THE letter which we publish over the signatures of two Vice-Presidents of the Institute, and others, is one with the substance of which we do not agree, for it seems to us that Unification, without which Registration is impossible, must precede, and not follow, Registration. Unification is practicable, desirable, and eminently reasonable, for nothing has been more undignified and harmful than the effect produced by the existence of the Institute and Society, both representing architects, but each, apparently, struggling for precedence and each issuing appeals to architects on the same issues and for the same object. "L'union fait la force"; and if there is any driving force behind the profession it can only be fully exercised if architects are united among themselves. It has been urged that the Unification Committee, in seeking its end, is opening the doors of the Institute too widely, and that in the rush which is expected to follow many may obtain a status to which their education and attainments do not qualify them. This may, or may not, be the case; but, even if it is, we should ultimately in time eliminate such defects which are very possibly inseparable from any scheme of unification, for the attainment of which it may be desirable to make very considerable sacrifices.

Probably most architects have at some period or other been more or less keen advocates of registration, and undoubtedly at the present time an overwhelming majority would be found to be in favour of the promotion of a measure of registration. The prevailing belief at the present time is undoubtedly that most of the evils under which mankind suffers can be cured by legislation; but, although evils are undoubtedly caused by unwise legislation, the extent to which mankind is benefited by any legislation is enormously exaggerated in the popular mind, and this applies to the section of public which forms the architectural profession. National wealth cannot be built up by legislation, but is the outcome of the natural resources of any country and the manner in which they are exploited by the individual effort of individuals and associations of individuals, and similarly the well-being of architects as a whole depends on the need that is felt for their services by the general community and the extent to which they, as individuals, can convince other individuals, of which the public is composed, of the advantage they may secure by employing them. We cannot—unless we assume that we are powerful enough to dictate to the State—force the individuals who compose it to employ us if they do not think it advisable in their own interests to do so, nor can we force anyone to pay us certain fees if they consider they can obtain equal advantages by paying others smaller sums. We may possibly restrict the use of the title "architect" to those who belong to the Institute, but when we have done so we have done little unless we have at the same time convinced the public that only an architect can give them what they want. At the present time a large section of people believe they can get all they require by going to an estate agent or to a builder, and if they are so convinced we cannot alter facts by emphasising names. We have to remember that the Merchandise Marks Act was passed in the hope that it would prevent people from buying cheap foreign goods, but in operation it served to advertise those goods. It is thus conceivable that registration would simply serve to deflect work away from architects, and not to bring it to them.

We do not take this view, but believe that the panacea of any measure of registration which could be passed would prove to have effected little or nothing, and we should be thrown back to the basic fact that a man's success in life depends on his personal and individual ability to prove to those with whom he comes into contact that his services are worth having and paying for.

It is possible that certain measures may prove a means which will enable him to secure legal redress in difficult cases, but it is also certain that a successful man rarely places himself in such positions that he has to evoke the assistance of the law. Success depends in the main on the individual's ability by wisdom, skill, and insight into the minds of others in avoiding controversies; and many men have fought and won law suits to find themselves almost as much damaged by success as they would have been by failure. Many of us might, in a word, do better if we carefully considered not only what we were obtaining from our clients, but also what tangible advantages our clients obtained through our aid, for it is on the principle of the *quantum meruit* as determined by public estimation that each man's success in life is determined. If we satisfy those who consult us, our own success will be certain—if we do not Registration will not help us.

Although architecture is a practical occupation it is also an art, and there are immense difficulties in applying tests which can prove that individual applicants in an examination possess the requisite powers of designing ability. If they have, they may not have what is almost as necessary—the power of carrying out their clients' work efficiently. We are not arguing against the application of the tests used by the R.I.B.A., but merely suggesting that, in the case of the public, such tests are hardly sufficient to dispose everyone to believe that their objects can only be obtained by the means of the registered architect. It is for the individual practitioner to prove in every case to his clients that he is competent; and, if practising architects are able to do so, there will be little inclination to go outside their ranks, which is, in the end, what we all want to bring about.

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Illustrations.

WAR MEMORIAL CHAPEL, ELY CATHEDRAL. E. Guy Dawber, F.R.I.B.A., Architect.
THE RED LODGE, BRISTOL, NOW USED AS THE BRISTOL SAVAGES' WIGWAM. C. F. Dening, F.R.I.B.A., R.W.A., Hon. Architect.

Notes and Comments.

The Red Lodge.

Perhaps the most pleasant of many pleasant memories retained by those who recently visited Bristol on the occasion of the opening of the new School of Architecture was the very pleasant dinner given by the Bristol Society of Architects at the Red Lodge, and we are glad to be able to give illustrations of a most interesting building which has been cleverly adapted for the uses of the Savage Club by Mr. C. F. W. Dening, F.R.I.B.A., R.W.A., who has acted as honorary architect for the Club. The Red Lodge and another house on the other side of Park Row, which was called the White Lodge, are said by tradition to have been the two lodges to a great house built by Sir John Young, a Bristol merchant, in the twentieth year of the reign of Elizabeth, but before Sir John took possession the grounds were the site of a monastery of a brotherhood of White Friars, whose house was dissolved by Henry VIII. In the changes which subsequently took place house and lodge became separated though they were enclosed in the same demesne walls in the time of Elizabeth. The lodge has since served as a Reformatory, but was acquired by the City of Bristol and restored by Mr. Dening, the work being finished in 1920. It is a building which any city would be proud to possess, and served as an admirable setting for the very gracious hospitality the Bristol Society accorded to their visitors.

Gentlemen's Seats.

Mr. Maurice Hewlett always writes delightfully picturesquely, and in an article on "Gentlemen's Seats" in the "Manchester Guardian" he gives a vivid picture of the changes which have passed over the country since the days when Glastonbury, Walsingham, St. Edmondsbury, Malmesbury, Shaftesbury, Reading, Fountains, Jervaulx, Whitby, and other of our abbeys were destroyed. "The great houses to which these churches gave their reason meant more to the people than the Belvoirs, Welbecks and Hatfields have ever meant; for there was the church a centre of worship and a beacon to the eyes for leagues about it; there was the convent not imparked, janitored, and remote, but with door and buttery hatch open to all comers. There was no poor-law while the monasteries stood, and it was not long before the people felt the lack of them. As far as they were concerned it was blank loss. There was no Protestant zeal among them to be gratified, that is certain. In fact, they lost more than they have ever found afterwards, when, as I once said elsewhere, the Authority, under the inspiration of Geneva, turned Madonna out of Church." Mr. Hewlett concludes by saying that "a perfection, which requires a wall of defence, gates, and gatekeepers, forty gardeners, and thirty housemaids, and fees from the general public, is not one over whose vanishing we need shed tears." The houses will remain beautiful things unless they become, as quarries, useful things, and half of North Wilts is possibly built of the stones of Malmesbury.

Lettering.

We have before us a handbook of Lettering by Arthur E. Payne, A.R.C.A., of London, published by Messrs. Batsford and sold at 3*s*. 6*d*. While the lettering shown is good, we regret the poverty of invention shown in it. Surely from the ample series of historical monuments, books, and other works available, it should be easy to compile a book of lettering which would be both interesting and useful. The forms shown are negatively good, but they are not like the lettering we often find in old books and manuscripts instinct with interest and charm, and there are many architects in London the ordinary lettering on whose drawings is infinitely better than anything here shown. It is an example of a book which we are surprised to see passed the critical examination which Messrs. Batsford usually display in the selection of works for publication. The author says that the demand is for a few plain letters established by custom. If this is so it is a question whether a book is really required, but as a book has been produced it will be considered a disappointing contribution to a fascinating subject.

The Housing Subsidy.

We do not wonder at the discontent caused by the threatened withdrawal of the subsidy to private builders. When Dr. Addison's omnibus measure was rejected by the House of Commons last autumn the public were informed that the subsidy clauses would be reintroduced as an agreed measure and passed as a separate Bill. More than this, the Ministry of Health issued printed notices, which they gave to inquirers, stating that the Government pledge would be honoured, and that the subsidy period would be extended by another year. Now, when many people have bought sites and prepared to build on the understanding that a clear pledge would be honoured, the Government on the score of economy suddenly go back on their own pledges. We have every sympathy with the desire to effect economies, and we should have approved the action of any Government which had refused at the outset to spend public money in housing any section of the population, but common honesty compels us to condemn the breach of a clear undertaking. The economy effected—the saving of about 11 million pounds—is inconsiderable, but if the finances of the country are in such a bad way as to render it necessary, there are other economies which should have been effected, one being our withdrawal from Palestine and Mesopotamia; another the return of the Telephone Service to private enterprise; the abolition of the Ministry of Transport; and possibly a more drastic reduction in the staffs employed at Whitehall.

Forthcoming Events.

Saturday, July 16.—Royal Institute of British Architects.—Visit to William Whiteley Village Homes, near Walton, Surrey. A motor omnibus will leave Conduit Street, W., at 2 p.m.

Tuesday, July 19.—Somerset Archæological Society.—Summer Meeting at Crewkerne (three days).

Friday, July 22.—Concrete Institute.—Visit to Westminster Hall to inspect the reinforcement of the roof trusses. 3.30 p.m.

Tuesday, July 26.—Society for the Promotion of Roman Studies.—Annual General Meeting in the Apartments of the Society of Antiquarians, Burlington House, Piccadilly, W. 4.30 p.m.

Saturday, July 30.—Visit to St. Pancras Old Church in Pancras Road. 3 p.m.

Competition News.

The Society of Architects having been unable to obtain a copy of the conditions of the Halifax War Memorial Competition from the promoters, the Council advises members that unless the conditions accord in every respect with the Society's Competition Regulations they are requested not to compete. Any member of the Society having a copy of the conditions of this competition is invited to submit same to the Secretary.

The will of the late Mr. John More Dick Peddie, of Belgrave Crescent, Edinburgh, and of Albyn Place, architect, who designed the Caledonian Station Hotel, the Bank of Scotland, and the Mercantile Insurance Company's offices in Prince's Street, Edinburgh, has been proved at £25,089. Mr. Peddie was a director of the Scottish Equitable Life Assurance Society and vice-chairman of the Edinburgh and District Tramways Co.

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"Architectural Heresies of a Painter."

We have received a copy of the paper delivered by Mr. Roger Fry at the R.I.B.A., prefaced by a commentary of our own, which was written after reading a report of the lecture. We have looked in vain for some of the *bon mots* which were included in our report, and believe that the more moderate tone of the pamphlet may possibly be the result of revision of the rough but Attic utterances of Mr. Fry. However, we will repeat his "heresies" in one column, and give our comment thereon on the opposite one.

Heresy No. 1.—We have substituted for the art of architecture the art of dressing buildings according to the fashion.

Heresy No. 1.—Should we not be correct in saying that architecture involved a type of design which varied from age to age, and that to call the expression of an age "fashion" is simply a method of depreciation? We might speak of the architecture of the thirteenth century as a fashion or, on the other hand, as the art of the thirteenth century or its vernacular. One term may be considered to be uncomplimentary, but facts remain unaltered. A fashion is a more or less prevalent means of expression, that is all, and may or may not be good or bad.

Heresy No. 2.—This phenomenon is more or less world wide. In the false architecture of modern Europe which results the English is distinguished by its lack of the sense of scale.

Heresy No. 2.—In what particular can the architecture of modern Europe be entitled "false" to a greater extent than that of any preceding age?

Heresy No. 3.—It is sometimes distinguished also by its good taste. Good taste in this sense is a social rather than an æsthetic virtue.

Heresy No. 3.—Does this curious statement mean that English architects have been more successful in designing cottages and small houses than foreign architects have, and, if so, why is it a heresy to say so?

Heresy No. 4.—There are two possible kinds of beauty in a building: (1) What I call natural beauty, which is also the beauty of a locomotive or a panther, and this results from the clear expression of function. (2) Æsthetic beauty which results from the clear expression of an idea. We have so arranged that neither of these beauties occur in our buildings.

Heresy No. 4.—We should have thought that the purpose of a warehouse or factory had been frequently clearly expressed without rendering it as beautiful as a "panther" or as interesting as a "locomotive." Does the expression of an idea involve or eliminate the expression of a practical requirement? If the latter we can understand an architect's failure, as a building has to fulfil practical requirements.

Heresy No. 5.—Æsthetic beauty in a building is essentially the same as that of sculpture. It results from the expression of a plastic idea. There has hardly ever been an æsthetic architecture in England and there has been even less sculpture.

Heresy No. 5.—What is a plastic idea? We should understand Mr. Fry if he said "English architects were unskilful in the treatment of mass and form," but we fail to understand what he means by a plastic idea as associated with architecture.

Heresy No. 6.—Our architecture does not express plastic ideas but historico-social ideas.

Heresy No. 6.—Does this mean that the position of a kitchen or scullery should not be fixed but should be moveable?

Heresy No. 7.—It is founded upon social snobbery.

Heresy No. 7.—If the modern man is a snob he is not the less a client, with wants, like any other client, which have to be met.

Heresy No. 8.—The vices of modern English architecture have almost always been inherent in the architecture of England. Modern conditions have brought out the rash.

Heresy No. 8.—It is interesting to think that our mediæval architecture and that of the Renaissance have been tainted growths. Let us hope that as the rash has at last come out the symptoms may subside!

Heresy No. 9.—Modern conditions and modern science have put into the hands of architects the greatest opportunity in the history of the world. They have missed it completely.

Heresy No. 9.—If this means that a greater amount of building has been carried out in modern times than in any previous era we are in agreement. We also admit that great opportunities have been missed, but doubt if Mr. Fry has shown us how our faults can be retrieved.

Heresy No. 10.—To a great extent this is not their fault.

Heresy No. 10.—This is consoling.

We do not agree with Mr. Fry in his denunciation of "copying," but we agree with him when he says, "It is quite possible for an artist to assimilate the principles of a past style as to be able really to create something entirely new while using similar forms." It is usually the man who is so steeped in a certain phase of work by means of study and "copying" that he has acquired a language, which he uses instinctively and without conscious thought, who produces work which strikes mankind as being original. It is this knowledge which enables a man to "think in a language, and not merely translate into it," as we quite agree with him that the designer should do.

After reading Mr. Fry's pamphlet we feel that, while it contains many clever expressions, it conveys very few clear ideas, and it may be questioned whether Mr. Fry has any new lamps to sell us for which we can safely barter the old methods of illumination he despised.

"The Architect" Fifty Years Ago.

JULY 15, 1871.

ST. MILDRED'S CHURCH, POULTRY.

THIS church, which it is proposed to pull down, stands on the site of a much more ancient edifice which was destroyed in the Great Fire of London. The existing building is from Wren's designs, and is by no means one of the best specimens of his work. Its interior is a simple room, with a flat, coved ceiling, "remarkable for nothing but a strange want of symmetry at the west end. On the south side of the organ, which stands in a gallery, a column is introduced, in order to carry the belfry, which occurs at that corner of the building; but, insomuch as there was no similar weight to support on the other side, a corresponding column was not deemed necessary." The interior is very small, being 56 feet long by 42 feet wide and 36 feet high. Externally, the tower —a very plain but not ungraceful portion—is 75 feet high. The cost of the work was £4,654 9s. 7¾d. Of the old church of St. Mildred-in-Cheap, which this building replaced, Stowe says that it was erected in 1457; but there must have existed a still earlier church in this place, and with this name, for John de Aswell was rector in 1325; and it is recorded that the church in which he served had become decayed, so that the one destroyed by the fire was built in its place. From the produce of the sale of the materials of St. Mildred's Church and of its site, £9,000 is to be expended for the erection of a new church in Clerkenwell; £2,000 for a rectory house to St. Olave's, Old Jewry; £4,000 for reseating and keeping in repair the church of this parish; with benefactions to those of St. Andrew-by-the-Wardrobe and St. Ann, Blackfriars.

COMPLAINTS as to the character of the houses being built under the Government housing scheme were made at a meeting of Walsall Rural Council. A member remarked that before the war they heard a lot about the speculative builder and jerry building, but he had never seen any houses put up by jerry builders which were more temporary in character than the property which was being built now by the Government.

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London Art Galleries.

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DURING the present season American art has been to the front in London, apart from the exhibition, which I noticed at the time, of contemporary American art at the Grafton Galleries, there have been individual shows of painting—such as Olive Tilton's portrait studies at Walker's Galleries—and of sculpture—such as that lately held at McLean's Gallery—and the present exhibition of Mr. Manship's work in sculpture at the Leicester Galleries adds another to this list.

Paul Manship was born in St. Paul, Minnesota, in 1885, and studied in the Fine Art School of that city, and, later, more directly in sculpture, in the Pennsylvania Academy of Fine Arts; in 1909 he won the prize scholarship in open competition for the American Academy at Rome, and proceeded at once to that city of art memories, where three years were spent, broken only by visits to Greece and Egypt—in the study and absorption of what the art of classic times had to tell him. The result may be traced in the beautiful bronzes now being shown in the Leicester Galleries. Mr. Manship, as we see him there, is clearly a classic in the best sense; the Hellenic vision has penetrated his art through and through. We find this in such figures as his "Atalanta" running at full speed, in his beautiful "Bronze Head," his well-known group of the "Dancer and Gazelles," which has been acquired for the Luxembourg Museum of Paris, his "Danae," his vigorous sketch study of two "Wrestlers," and his male figure of the "Spear Thrower."

At the same time, it may be remarked that much of his work in bronze possesses an archaic quality which is not without its own charm; this is especially noticeable in the draperies of such figures as that in the "Flight of Night" and the "Diana," who, accompanied by her hound, is not so much running as actually flying, a treatment which might fairly be criticised. Technically one of the finest works here is the little group of the "Centaur and Dryad," which has been purchased for the Metropolitan Museum of New York; the grouping and actual modelling of the figures here is admirable, and worth noting carefully is the bronze base with its delightful low reliefs. But I cannot conclude this notice without mentioning the portrait study of the artist's daughter, Pauline, when three weeks' old. The puckered baby face is as clever in modelling as anything of Jacob Epstein's in this kind, but the artist here is a classic, and thus has framed his baby portrait in a lovely frame in the very spirit of the Renaissance. Here at last we have a really satisfying display of work from across the Atlantic, and as such we welcome it; for we want from America the very best she has to show us, and nothing else will satisfy us.

The two outside rooms of the Leicester Galleries are devoted to the art of Mr. W. Lee-Hankey, and appears to me the most complete display of this artist's work which has come to my notice. We come first to the etchings and dry points, among which may be noticed the strong drawing of the group of refugees in "The Flight from Belgium," and the tender treatment of mother and child—always a favourite theme with this artist—in "La Méchante" and "Maternité." The next room is devoted to oil paintings and water colours, and is really a very noticeable display. In "Peasants of Provence" and "Sunny Day at Beaune" the mother and child is still the theme; in "The Fan" and "At the Spanish Window" single figures of girls, in "Reclining" a cleverly handled nude. But perhaps the artist is really at his best in such characteristic figures as "The Collector" and "Le Matelot," a strongly painted and typical French sailor, or the mother and child in "A Corner of the Garden." Apart from his dry points and aquatints, in which he is famous, Mr. Lee-Hankey shows here as a thoroughly equipped artist in other mediums.

The Egypt Exploration Society is holding from July 4 to July 13 an exhibition of antiquities recently unearthed at Tel-el-Amarna. It is scarcely out of place to compare this display in the rooms of the Society of Antiquaries at Burlington House with that of the Burlington Fine Arts Club this season, because the one is, in a sense, complementary to the other—the club exhibition being one of very choice objects, while that of the Exploration Society, digging into the site of the ancient capital of Amenophis IV., brings us very close to the actual life of the people during the eighteenth dynasty—say, about 1400 B.C. We see fragments of looms and spindles, toilet objects, which show how the Egyptian ladies "touched up," glazed tiles and faience, stone seats, baskets and beads. An interesting feature are the funerary chapels and shrines here reconstructed; and what seems clear is that these Egyptian houses were, like the Pompeian, grouped round a central court, but which was generally covered in. A trial piece by a sculptor shows figures outlined in varying dimensions, with great delicacy of line.

It has been decided to continue the most successful exhibition of equestrian portraits in bronze, including war, polo, and bull-fighting, by Herbert Hazeltine at Messrs. Thomas Agnew Galleries for another fortnight, and I can thoroughly recommend this display to those of my readers who have not seen it. Mr. Hazeltine is a master of his subject that "noble animal, the horse"; most spirited are the polo groups and the bull-fighting studies (in "Un Puyazo" the rider drives his lance into the bull, who is goring the poor horse), but the single figures of thoroughbreds, as well as Queen Alexandra's barouche horse "Splendour," are no less admirable.

S. B.

Art News of To-day.

A GREAT deal of interest has been aroused in the fate of the historic mansion of Stowe, which, after having been for four centuries in the hands of the great families of Temple and of Chandos, has been put up for sale by the Baroness and Master of Kinloss, to whom it had come from the late Duke of Buckingham and Chandos. Stowe, with its great façade, its gardens, its parterres and classic temples, and its wonderful treasures within, seems a part of the English aristocratic life of the eighteenth century. Horace Walpole, in his inimitable Letters, had once said of it that "every acre brings to one's mind some instance of the parts or pedantry, of the taste, or want of taste, of the ambition or love of fame or greatness or miscarriages of those that have inhabited, decorated, planned or visited these places. . . . Pope, Congreve, Vanbrugh, Kent, Gibbs, Lord Cobham, Lord Chesterfield, the mob of nephews, the Lytteltons, Grenvilles, Leonidas Gower, and Wilkes."

Last week the mansion itself, the famous temples of Virtue, Friendship, Venus and Concord, the gardens, which Bridgeman Kent and Vanbrugh had laid out, and a large part of the estate, were acquired as one lot by Mr. Harry Shaw, of Beenham Court, Newbury, for £50,000; and there seems to be a hope that the mansion itself, with the immediately surrounding 272 acres, may be handed over to the nation. The classic temples were, as we believe, erected by Lord Cobham in the eighteenth century, and suited for reception or a concert party; and the interior, besides the fine tapestries, the panels painted by Angelica Kaufmann, the carvings in cedar wood by Grinling Gibbons, contained a remarkable portrait by Sir Peter Lely of the charming "comedienne" and Royal favourite, Nell Gwynne, and the portrait by an unknown master of another Royal favourite, Diane de Poictiers, who is seated at a table looking at her jewels. The Lely portrait, we are informed, is superb; and a sculpture panel in stone shows the battle of Bosworth Field. The furniture of the secondary rooms, sold last week, offered many attractive bargains and souvenirs of England of the past.

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The Architectural Association.

THERE was a large gathering of students and friends of the School of Architecture at 34-35 Bedford Square, W.C. 1, on Friday, the 8th inst., on the occasion of the annual announcement and distribution of prizes. The chair was taken by Mr. W. G. Newton, M.A., A.R.I.B.A., the new President.

In a few opening remarks Mr. Newton said that the year just completed had been a very important one in the history of the A.A. because it was the first normal working year since the war. When the Director of Education first came to the School, and was just getting into his stride, war broke out. They carried on as best they could, and, amongst other happenings, they changed the home of the School to Bedford Square. At last they had got going. He thought they would all agree that, so far as one could tell results from prizes, scholarships, and the work of the ateliers, the whole formed a very great tribute to the work of their Director of Education, Mr. Robert Atkinson, that of their Principal, Mr. H. M. Robertson, and of the rest of the very capable and devoted staff who gave up a tremendous lot of time, and all their enthusiasm, to the School. There had been during the year certain important events in architectural education. Perhaps one of the most striking was that the Board of Architectural Education had extended the privilege of exemption from its final examinations to schools of sufficiently high standard—and the Architectural Association School had been looked to as one of the first for that honour. After five years in the School the student has only to face an examination in professional practice—which is conducted by three of the vice-presidents of the R.I.B.A.—to become an Associate of the Royal Institute. The honours which the School has won during the year included the Blue Riband of Studentships, viz., the Rome Scholarship, which was awarded to Mr. S. Rowland Pierce, and (neck and neck with that Blue Riband) Mr. E. W. Armstrong had won the Henry Jarvis Studentship. The Tite Prize, in a blaze of glory, went to Mr. Gordon Holt, and the Victory Scholarship to Mr. Woodhouse. They looked forward with great interest to the development of their atelier, which is just getting into its stride, under Mr. Bradshaw. He would urge them to keep in touch with the atelier, for both the design and the social sides of the School. There had been some very interesting and cheery evenings once a month, and a lot of distinguished people had come down to talk to them, ranging from the paradoxes of Mr. Chesterton to the impassioned oratory of the Guild of Builders. He might mention that no less than 54,000 meals had been served in the dining-room. The Students' Club was happily inspired just recently to give the R.I.B.A. Council a very good evening there. Such a function helped towards cordial relations. The A.A. needed the cordial support of the profession: it was the first and only School run by architects for architects, and it showed the extraordinary spectacle of men of reputation giving up time, and, frequently, money, in order to produce professional rivals. The number of students was practically 200. The Association had no University endowments and no large financial resources to draw on; on the other hand, they had a large debt, and they needed money for scholarships, the library, and for equipment. They had issued debentures, and they were going to appeal for £50,000 endowment fund. So far, over £15,000 had been received in debentures and £6,570 towards the endowment.

He would particularly like to mention that Sir Henry Holloway was propos ng to endow them with £5,000 for scholarships at the A.A. That was a very great thing, and it would be well if other great builders of this city could be similarly interested in architectural education. The builder usually died possessed of greater wealth than the architect. In Manchester the builders were assisted in architectural education and endowing popular lectures. He felt sure if London builders were appealed to they would help the A.A. Here and there an occasional Duke had been approached, and already a contribution had been received from the Duke of Westminster. It was necessary to keep pegging away so as to establish the A.A. on as perfectly sound a financial basis as it was on an educational one. In conclusion, he would wish all students a happy vacation, and recommend them to devote some of their time to making measured drawings.

Mr. Ernest Newton, R.A., before presenting the prizes, said that students of architecture to-day enjoyed many advantages denied to their predecessors. One of the greatest of these advantages was working together as as community, affording, as it did, endless opportunities of discussing with men of diverse gifts and views not only the problems of the moment and the architecture of the future, but, most fascinating of all, the faults and shortcomings of former generations. R.A. students could be taught, as a matter of course, many things that architects hitherto have had to acquire with pain and difficulty after their days of apprenticeship were over. In the same way the students will have to acquire many things which cannot be taught in the Schools when they come face to face with the actual problems of buildings. But they will be well equipped by their wide and thorough instruction to tackle and master all those problems as they presented themselves. It might perhaps be possible for many students when they completed their course at Bedford Square to spend a year on a building—the bigger the better—working with a good foreman. This would be an invaluable experience, showing, amongst other things, how those troublesome spaces sometimes left blank on sections of design problems are filled in. They would also learn what a splendid fellow a good foreman is, and how much he knows and can do. Architects who were brought up in the old way enjoyed their special advantages too. Those who had the privilege of serving their time under men like Norman Shaw, Bodley, Scott, Pearson, and others, not only had the direct inspiration of giants, but were working on drawings of buildings and in an atmosphere of actual building problems. There is perhaps for an architect no joy like that of seeing for the first time something he has designed on paper being actually built. Those, however, who served their apprenticeship in less fortunate surroundings often found themselves, after a term of years, not only poorer in pocket, but very lightly equipped for the practice of an art bristling with difficulties, and one for which universal knowledge is hardly too much. A large stock of enthusiasm is wanted to start with, as it will be found that the calling makes devastating drafts on capital. An A.A. student's advantages were great, and the fine collection of drawings hung on the walls showed how fully the members had profited. They must not think because those of the older generation had the misfortune to be born forty years or more ago that those seniors are consequently out of touch with modern methods and that they cannot appreciate and value modern ideas. He could assure them that that was not the case, and the seniors would watch the future careers of the students with keen interest. If the old system, or want of system, produced such men as he had mentioned, and the many other great architects of earlier times still, whose names were too familiar to need mentioning, they would expect super-architecture from the A.A. students, and they would not be disappointed.

LIST OF SCHOLARSHIPS AND PRIZES, 1921.

Public School Entrance Scholarship, value £63, R. T. Westenday (Charterhouse).

Open Entrance Scholarship, value £63, W. E. Palmer, Royal Masonic School.

British School of Architecture, special prize value £5, A. J. Saise.

A. A. Essay Prize, open to all students, value £10 10*s*., Miss I. M. Chambers.

First Year Course.—1st prize, "Howard Colls" Travelling Studentship, value £15 15*s*., A. E. Cameron; 2nd prize, books, value £5 5*s*., R. F. Orfeur; art subjects, value £3 3*s*., R. F. Orfeur; general progress books, value £2 2*s*., E. Walmsley Lewis; scholarship tenable for one year in second year course, value £63, L. J. Young.

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Second Year Course.—1st prize, A. A. Travelling Studentship, value £26 5*s.*, R. E. Enthoven; 2nd prize, books, value £10 10*s.*, Hon. H. A. Pakington; art subjects, books, value £5 5*s.*, R. E. Enthoven; general progress, books, value £3 3*s.*, A. S. Knott; scholarship tenable for one year in third year course, value £63, L. R. Hiscock.

Third Year Course.—1st prize, "Henry Florence" Travelling Studentship, value £50, J. C. Shepherd; 2nd prize, books, value £21, C. G. C. Hyslop; 3rd prize, books, value £15 15*s.*, C. S. White; general progress, books, value £5 5*s.*, M. R. H. Harris; "Henry Jarvis" Scholarship, given by R.I.B.A., value £50, E. U. Channon; "Alec Stanhope Forbes" prize for best colour work during year, books, value £5, K. D. P. Murray; scholarship tenable for one year in fourth year graduate course, value £63, D. Petrovitch.

Fourth Year Course.—Design, 1st prize, value £5 5s., Miss E. G. Cooke; second prize, value £3 3*s.*, W. Percik. Construction, value £5 5*s.*, N. C. Mackey. Colour, value £3 3*s.*, Cecil Smith.

Fifth Year Course.—Design, value £5 5*s.*, Stanley Natusch. Town-planning, 1st prize, value £5 5*s.*, Stanley Natusch; 2nd prize, value £3 3*s.*, C. M. Masters.

A. A. Diplomas Awarded to: Stanley Natusch, J. H. White, Bernard George.

Mr. Robert Atkinson, Director of Education, proposed a vote of thanks to Mr. Ernest Newton for coming there that afternoon. The President had said that the work of the School was of a very high standard. A great part of such success was due to the students themselves, for they worked in a healthy spirit of competition and largely managed their own affairs. The masters stood in the background and merely pushed out those who were unsuited. However, the work of the masters was the nucleus round which the School was built. Gaps in their educational system were now being filled. The fourth and fifth year courses had filled blanks for which architects hitherto had been so miserably at the mercy of specialists. It was notable that their last three presidents had been sons or grandsons of very eminent architects. He would like to say they would have the greatest pleasure in educating a third generation of Webbs and Newtons.

Mr. H. M. Robertson, Principal, in seconding the vote of thanks, paid a tribute to the students general attitude and the immense enthusiasm they brought to the social side of the School. When things looked at all black there was nothing more encouraging than to see the cheery people about the building. It had a strong moral effect on the staff and a strong effect on the work.

The vote of thanks was then passed by acclamation.

Mr. Ernest Newton, in a very brief acknowledgment, alluded to the A.A. School as the one live thing in London. He could not help feeling that his presence there that afternoon was in some degree due to favouritism. But he would like to say that if their new President was as good in that office as he was good as a son they would have the best President in London.

The Bartlett School of Architecture.

THE following awards have been made in the Bartlett School of Architecture at University College, London:—

Lever Prizes: In Architecture, A. R. Dent; in Town-planning (first), W. Harding Thompson, (second), E. C. Tasker.

Donaldson Silver Medal: A. C. Macdonald.

Herbert Batsford Prize: J. B. Cooper.

Andrew Taylor Prizes: (second-year student), F. Jenkins; (third-year student). S. Hyde.

Ronald Jones Prizes: Renaissance, F. Jenkins; Mediaeval, C. P. J. Fahy.

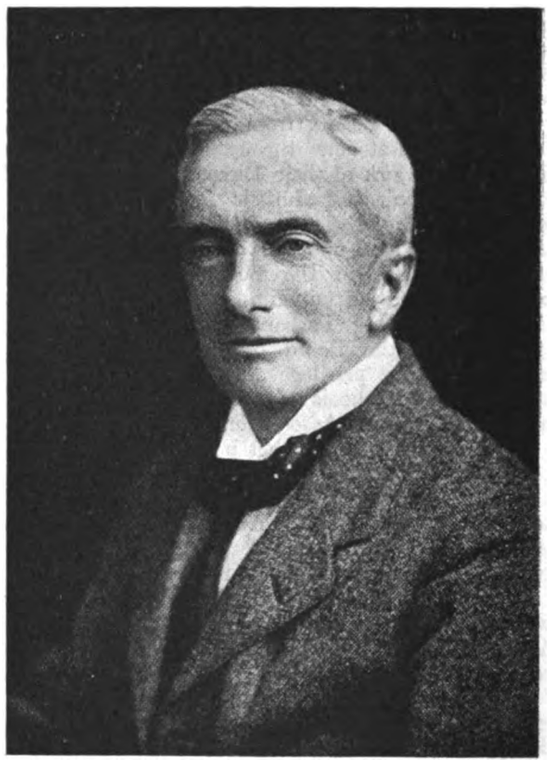
Certificates in Architecture have been obtained by:—

Gwendolen M. Adshead, H. G. Blizzard, G. T. Brown, R. J. Bunce, W. G. Childs, V. G. Cogswell, G. A. Crockett, E. E. Edmunds, C. P. J. Fahy, G. H. Fielder, M. C. Glover, F. Jenkins, J. L. Kelf, E. Kirby, A. L. Knott, O. W. H. Law, H. Lewin, Breta G. Merryless, R. J. H. Minty, S. L. Palmer, P. N. Patker, L. F. Shreff, J. R. M. Simpson, L. L. T. Sloot, E. K. Taylor, Katharine M. Wallis, O. M. Walsh, T. J. R. Winn; F. T. Winter.

Certificates in Town-planning have been obtained by:—

H. A. Mealand, E. C. Tasker, R. W. Vanes, K. B. Walker (with distinction).

The New President of the Royal Institute of British Architects.



MR. PAUL WATERHOUSE, F.S.A., the new President of the Royal Institute, was born at Manchester in 1861, the son of Alfred Waterhouse, R.A., and Elizabeth, daughter of John Hodgkin and sister of Thomas Hodgkin, historian. He was educated at Eton, where he reached the sixth form, and at Balliol College, Oxford, where he was captain (and cox) of the College eight, and obtained an honours degree (second class in classics). He served his pupilage with his father, with whom he was for ten years partner. Alfred Waterhouse died in 1905, but was disabled by ill-health in 1901, so that from that date to the present time Mr. Paul Waterhouse has been in independent practice. He completed his father's work at Liverpool University, at Girton College, at University College Hospital, at the Royal Infirmary, Liverpool, at St. Mary's Hospital, Manchester, at the Prudential office, Holborn, and many other places. Of his independent works since the period of partnership the principal are the University of Manchester (botany block and extensions of chemical and library departments); Leeds University metallurgical, electric, arts, botany, and other blocks; Oxford University, organic chemistry laboratory; Prudential offices at Stockton, Stockport, Leicester, Aberdeen, Dunfermline, Grimsby, Darlington, Middlesborough; additions for National Provincial and Union Bank of England, Bishopsgate, now in progress; Refuge Assurance Company extensions at Manchester; new premises for Lloyds and National Provincial Foreign Bank at Paris and Brussels, now in progress; St. Francis's Church, Hammerfield; various domestic cottage and church works at St. Andrews, Fife; the Tabernacle of the Blessed Sacrament of St. Mary Magdalene's, Osnaburgh Street; the medical school of the University College Hospital, Gower Street; the Royal National Pension Fund

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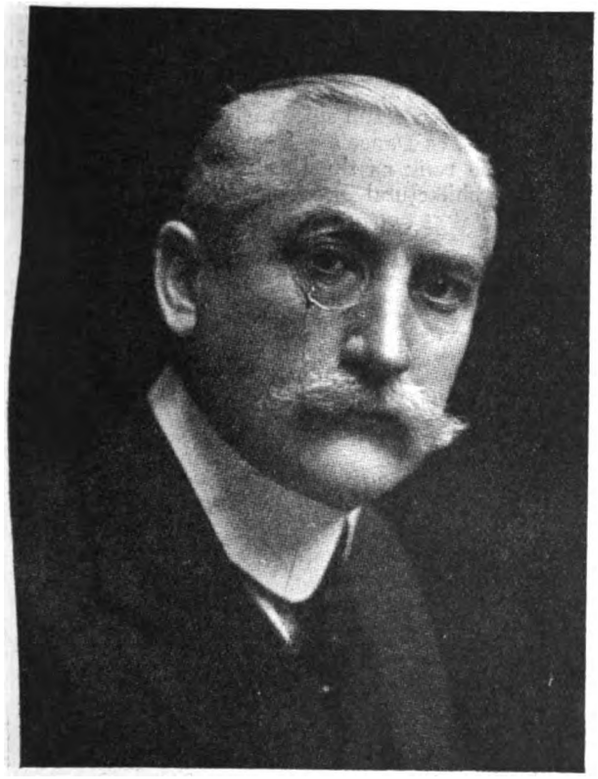
for Nurses, Buckingham Street, Strand; the London Salvage Corps; the Atlas office, Birmingham. He has recently been appointed architect, in conjunction with Mr. George Hornblower, of the new buildings of University College Hospital. He has written extensively on architectural subjects in periodicals, has frequently lectured on the same topics and on London problems. For Macmillan's guide-book of Italy he contributed a summary of the architectural history of Italy, and has written many lives in the "Dictionary of National Biography." He is a life trustee of Sir John Soane's Museum.

He was elected an Associate of the R.I.B.A. in 1889, having won an additional prize in the old Associateship examination, being second to the Ashpitel Prizeman of his year. In 1886 he was awarded the Institute Silver Medal and twenty-five guineas for an essay on "Pediments and Gables."

He is Chairman of the Board of Architectural Education, and was for some time Hon. Secretary of the Literature Committee. He was a Vice-President of the Institute from 1915 to 1919. He has also been Vice-President of the Architectural Association. He was for many years a performing member (tenor) of the Bach Choir and of the Magpie Madrigal Society. He is a Churchwarden and Chairman of a Parish Council, also a Governor of Newbury Grammar School.

He married in 1887 Lucy Grace, daughter of Sir Reginald Palgrave, K.C.B., and has one son, Mr. Michael Waterhouse, A.R.I.B.A. (whose practice is largely in conjunction with his father's), and two daughters.

The Late President.



Mr. John W. Simpson, whose term as President of the Royal Institute of British Architects has just expired, was publicly thanked at the last general meeting for the splendid services he has rendered, not only to the Institute, but to the architectural profession at large during the arduous years of his Presidentship. He has also received from the Council an address testifying their appreciation of the skill and devotion with which he has directed the Institute's affairs, the presentation of the address being accompanied by the gift of an antique bracket clock decorated in lacquer.

Mr. Simpson is held in as high regard in architectural circles in France as he is in his own country. He is an honorary member of various French learned societies, his most highly prized distinction being his corresponding membership of the Institute of France. His connection with these bodies, combined with his command of French, which he speaks and writes with a fluency and a scholarliness rarely attained by one who is not French-born, has for many years been of infinite service to the Royal Institute in its relations with Continental Societies.

Mr. Simpson's practice as an architect is varied and extensive. His buildings are mostly of the monumental type, and the same qualities are observable in them all—true artistic feeling, nobility of plan, breadth of treatment, suitability of purpose, and, needless to add, freedom from unnecessary and meretricious ornament. He holds the position of architect to the Honourable Society of Lincoln's Inn and to the Royal Society of Painters in Water Colours. His works comprise the Roedean School, Brighton; the Queen Victoria Memorial, Bradford; the Royal Sussex Regiment, Onslow Ford and other monuments, and numerous houses, studios, &c., throughout the country. He was architect, jointly with his partner, Mr. Maxwell Ayrton, F.R.I.B.A., of the National Hospital for the Paralysed and Epileptic; Grafton Street Hospital, Liverpool; office of the Crown Agents for the Colonies, Millbank; the Art Galleries for the Corporation of Glasgow; the Victoria Institute, Worcester; the Cartwright Memorial Hall, Bradford; the new buildings at Haileybury College; School Holt, West Down, Winchester; Lancing College; board schools at Brighton, &c., &c.

He was recently specially engaged to act as expert Consulting Architect to the Egyptian Government's scheme for building at Cairo what is officially described as "the most complete hospital and medical school in the world." The hospital is to contain 1,225 beds and have accommodation for 3,000 out-patients daily; the school is to accommodate 600 students. Mr. Simpson visited Cairo last September and selected the site, and, under his advice, an international competition is being held for designs, with Mr. Simpson as assessor. Something of the colossal nature of the undertaking, and of the enormous burden of responsibility the assessor has to shoulder, may be gathered from a perusal of the conditions drawn up by the assessor, the "Instructions to Competitors" alone running into twenty-one closely printed foolscap pages.

Mr. Simpson organised the great Town-planning Conference of 1910, and is the author of an epoch-making paper on the "Planning of Cities and Public Spaces," and numerous other professional papers. His Presidential addresses and writings generally reveal literary gifts of a high order; they are written with fastidious care, and show an extensive range of reading which has been well assimilated. They leave the impression that the writer is a man of unquenchable energy, whose life has been passed in hard study and in the acquisition of knowledge, that he is devoted to the interests of art and, that, before all else, he is an artist.

Messrs. W. H. Radford & Son, engineers, of Nottingham, have been engaged by the Newark Town Council at a fee of 100 guineas to report upon the sewers and sewage disposal.

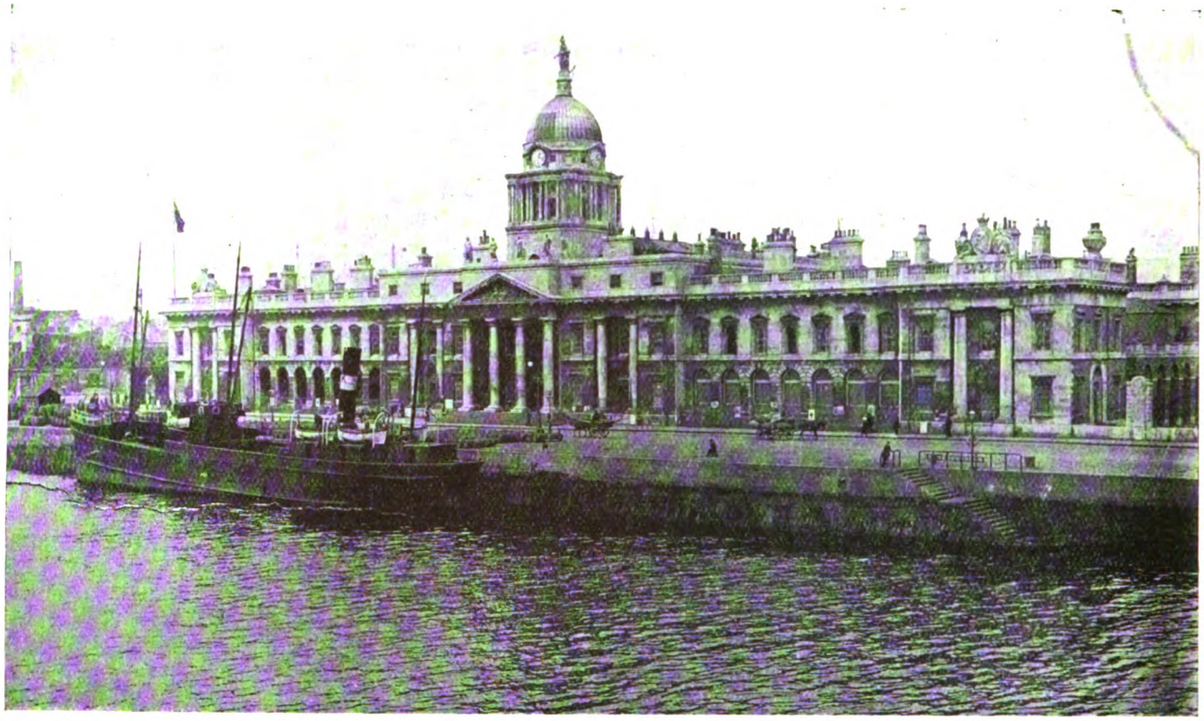
The Ministry of Health has given permission to Rugby Urban District Council to proceed with a scheme for building thirty-six houses on the Park estate. These houses were cut out of the original scheme by the Ministry, and the decision to allow the scheme to be proceeded with has been given as a result of the Council's protest against the banning of the Wharfield estate scheme.

At the Llangollen Council meeting recently the builders reported that their water supply was exhausted and appealed for water from the Council's mains. The chairman said it was impossible to furnish it. They could not take water from domestic purposes for building. Of course it would mean an outlay for the builders to bring water from a distance in barrels. The water inspector stated that the reservoir was completely empty, and the matter was deferred for a fortnight.

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The Custom House, Dublin, and its Architect.—I.

R. M. Butler, M.R.I.A.



THE CUSTOM HOUSE, DUBLIN, BEFORE THE FIRE.

The Custom House, Dublin, a stately granite and Portland stone pile by the riverside of Dublin, which was completely gutted by fire on May 25 to 28 last, has been justly rated as one of the very finest achievements of the Anglo-Irish Renaissance.

Of the many fine buildings of Dublin, the Custom House was incomparably the best. Its position in the architecture of these countries has been aptly described by Sir Reginald Blomfield in his "History of Renaissance Architecture":—

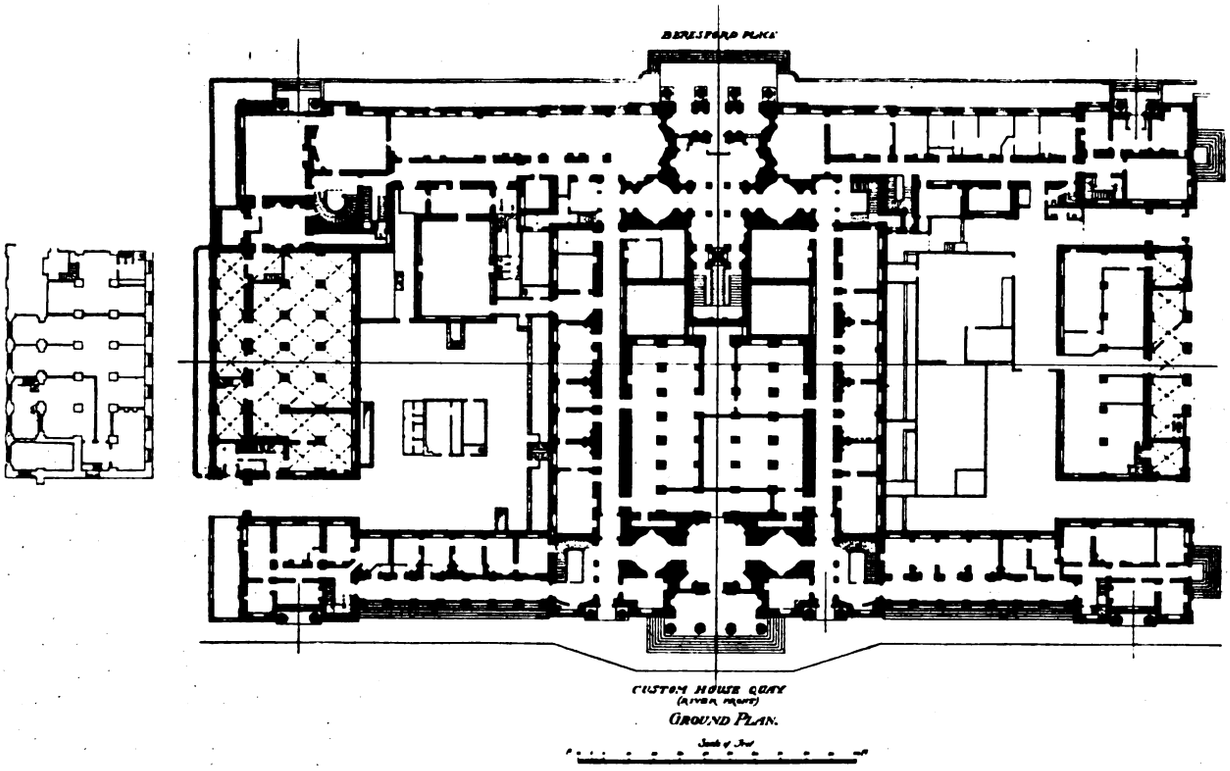
"The Custom House of Dublin, with the splendid outline of its dome, ranks high in the record of the eighteenth century. With Newgate Prison and Somerset House, it represents the final effort of the eighteenth-century tradition, and the three are probably the finest public buildings erected in Great Britain since the time of Wren."

Admirable as Dance's great prison was, it was hardly of the same rank as the Custom House. Belcher in "Some Architectural Essentials" rates it with Greenwich Hospital as two of the best buildings of British-Irish Renaissance. Professor A. E. Richardson, in "The Classical Monumental Architecture of Great Britain and Ireland," places the Custom House as one of the very finest:—



THE CUSTOM HOUSE, DUBLIN, AFTER THE FIRE.

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"There is a total absence and disregard of trivialities. Not only does the building inherit something of the finest attributes of the whole series which preceded its erection, but the amazing skill of the designer imparted to the structure a unique character. Gandon approached his problem as a sculptor first, and a constructor last; he strove for the maximum effects of light and shade, and never allowed his taste to succumb to the fashionable effeminacies, such as were advocated in other quarters. In the disposition of the minor elements in every part of the building, each feature is an exquisite study in itself, bearing due relation to the larger parts, and supporting the monumental qualities."

The Custom House is, however, not faultless, its plan, although a great one in conception, left much to be desired in its details.

His appreciation of the noble qualities of this great monumental design, with its beautiful outline, has not blinded Professor Richardson to a certain fault in the exterior. The great central dome was in itself an exquisite piece of design, but Professor Richardson very truly observes that:—

"In this inheres the chief fault in the design. There exists a lamentable different between the scale of the huge Doric Order of the portico, and the delicate Corinthian Order forming the peristyle to the dome. Considered as a piece of spirited architecture, the latter is admirable in every particular. . . . At the Custom House, although the dome acts as a splendid foil and contrast to the lengthy river façade, the contrast is such as to accentuate the difference in scale between the dome and the portico."

Before proceeding to consider the Custom House in detail, it may be useful to say briefly something of the career of its architect:—

James Gandon, the distinguished architect of the Dublin Custom House, was born at his grandfather's house in New Bond Street, London, on February 29, 1742 (old style). The grandfather was a French Emigré, a native of Blois, who had fled from France on the revocation of the Edict of Nantes in the reign of Louis XIV. This famous Edict, which gave freedom of religion to the Hugenots, was signed by Henry IV. on April 15, 1598; it was revoked by Louis XIV. on October 18, 1685, thereby driving into exile 400,000 of the most distinguished, industrious, and capable of the natives of France, whose talent and energy went to enrich the various countries of their adoption. A number of them settled in, amongst other places, the parish of St. Anne in London. The Gandons were connected with the Aymiotts, Moulliotts, Beltons, and other Hugenot families settled in various parts of England. There was also a Roman Catholic branch of the family, represented by the Abbé Gandon, a literary man of distinction, and a poet in Paris, whom James Gandon, the architect, had the satisfaction of meeting in Paris in 1817. A letter of the Abbé's written to James Gandon in 1819 bears testimony to the pleasure with which he regarded this meeting.

Gandon, the grandfather, brought with him to England sufficient means to enable his family to live in comfort. His son Peter, the father of the great architect, lived with him; he married a Welsh lady of the name of Wynne, by whom he had two children.

When seven years old, James Gandon was sent to a boarding school at Hatfield in Herefordshire, where he remained for two years. Subsequently he went to another boarding school at Kensington Gravel Pits, where he remained for about five years. He attained some distinction in classics, and his studies in mathematics were respectable; to these he devoted most of his time. In the science of fortification, in landscape, and ornamental drawing, &c., he displayed talent. In his efforts in engineering drawing he showed much taste, and his father thought this might procure for him a commission in the Royal Engineers or Artillery.

The father, Peter Gandon's tastes and time were directed towards experimental chemistry, in those days deemed a rather foolish pursuit.

Gandon, the architect, left on record, after an interval of upwards of seventy years, the appearance of his father's house, the furnaces, the various apparatus, &c., the gentlemen with their large flowing wigs, their gold and amber-headed canes, awaiting the results of the experiments.

Unfortunately, Peter Gandon succeeded in transmuting neither gold, silver, nor any other valuable product. Indeed, the results did not defray the cost of production.

The Gandons' troubles were, however, forgotten amidst the social pleasures of artists, scientists, and others, who were accustomed to meet at Old Slaughter's Coffee House in St. Martin's Lane, where the artists, the literary, and other characters of the day were accustomed to meet.

Peter Gandon, father of James, appears to have been of a peculiar, but kindly character. Unfortunately he was so devoted to chemical pursuits that they injured his circumstances. Finally, he had to give them up, and later his wife died. Gandon, the architect, seems to have preserved a lively and affectionate recollection of his mother, but in spite of her efforts the family appears to have fallen into poverty.

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James Gandon early displayed a taste for drawing, and at about fourteen years of age was sent to Shipley's Drawing Academy. He has recorded the fact that in Shipley's Academy "he had every opportunity of acquiring a theoretical knowledge of architecture." This is, in a sense, noteworthy, but was general enough in Gandon's day. In those days no man going through the training of young Gandon would have been capable of committing the solecisms that are so common nowadays, or of displaying the ignorance of the principles of classical architecture, that are now not altogether uncommon.

In the days of Gandon's early studies there arrived in London one William Chambers. He had travelled much, had visited China, knew Eastern art well, and had resided in Rome. In Rome, Chambers managed to become acquainted with many of the English and Irish aristocracy, who in those days held all power and influence.

When Chambers settled in London, Gandon heard that he required "an assistant, a sort of office clerk or pupil, to make the necessary drawings for the various works on which he was engaged." A curious commentary on the practice of the day. Gandon waited upon Chambers at his house in Poland Street, with the usual portfolio of drawings, and shortly afterwards became indentured to him at a "very moderate fee."

Gandon, then only about fourteen or fifteen years of age, attended the office daily, and Shipley's Academy in the evening. In all his studies he is said to have shown the greatest perseverance and industry. In the memoirs of his life he has mentioned that water-colour was then in its infancy. Water-colours were mainly, at that time, confined to slight tinting, and gave little hint of the great English Water-colour School soon to follow. Masterly drawings were, however, produced by Paul Sandby and others. These drawings were mere outlines tinted in bistre or sepia; that practice continued until the reign of George II., when the foundations of the great English Water-Colour School were laid. Gandon, during his time at Chambers's, resided with him, and apparently remained about eight years, as it was in 1765 that he left to begin practice for himself, which he thus did, qualified by an exceptionally fine training, though he had not the advantage of the continental tour, then considered desirable.

Through the influence of a solicitor named Berry Hutchinson, he was employed by several of the City Companies on the repair of their halls. His friend Paul Sandby, the artist, and Mason the poet, also afforded him some valuable introductions.

About 1776 he conceived the idea of continuing the publication of the Vitruvious Britannicus, of which Colin Campbell, architect, had published three volumes. In this venture Gandon was associated with Woolf, an Irishman from Kildare, an architect in the Board of Works in London, but almost the whole labour fell upon Gandon, Woolf being of a lazy disposition. He produced two fine folio volumes, completing the work before he was twenty-five. For this work he engraved many of the plates.

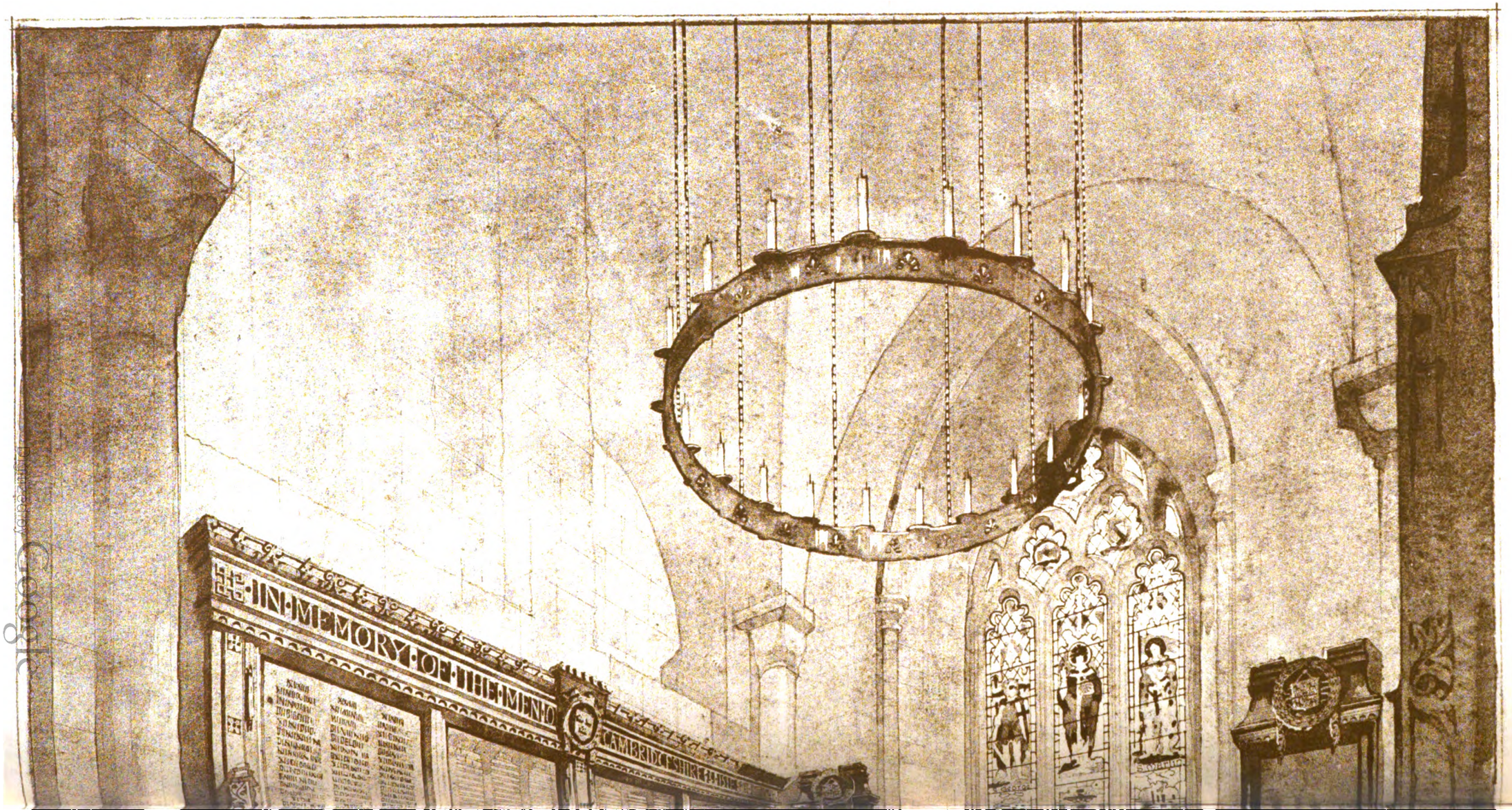
About 1779 Thomas Malton, junior, was living at Bath, and Gandon at this time engraved for Malton from the latter's drawings certain views of Bath. I possess two sepia prints dated 1779, T. Malton, junior, Delv. James Gandon, Architect, Fecit, Published March 3rd, 1779. Sold by T. Malton and J. Gandon at No. 40 Broad Street, Carnaby Market, and belong to a series. Between 1766 and 1769, as well as this onerous work, he exhibited several times at the Incorporated Society of Artists, completed for and won the gold medal in Architecture of the Royal Academy, to the great gratification of Chambers, competed unsuccessfully for the Royal Exchange, Dublin, but was awarded the third premium, Cooley's design being accepted, and carried into execution; prepared designs for the Nottingham County Hall, about 1770, his first important work, and made many useful and interesting friends. In the Nottingham Hall, as in his other works, the influence of Chambers may be discerned. The design was slightly heavy, but well proportioned; the building was considerably altered about 1870. In the volume of the Thoroton Society 1916 there is an article by Mr. H. Hampton Copnall, Clerk of the Peace and Clerk of the Nottingham County Council, on the County Hall. It contains a history of the events leading up to the building erected by Gandon, and it contains a copy of the inscription over the existing building, with Gandon's name on it. I understand the print still exists intact, but that the interior has been much changed. I am indebted for this information to the late Mr. W. J. Jessop, of Nottingham, and to Mr. H. Hampton Copnall.

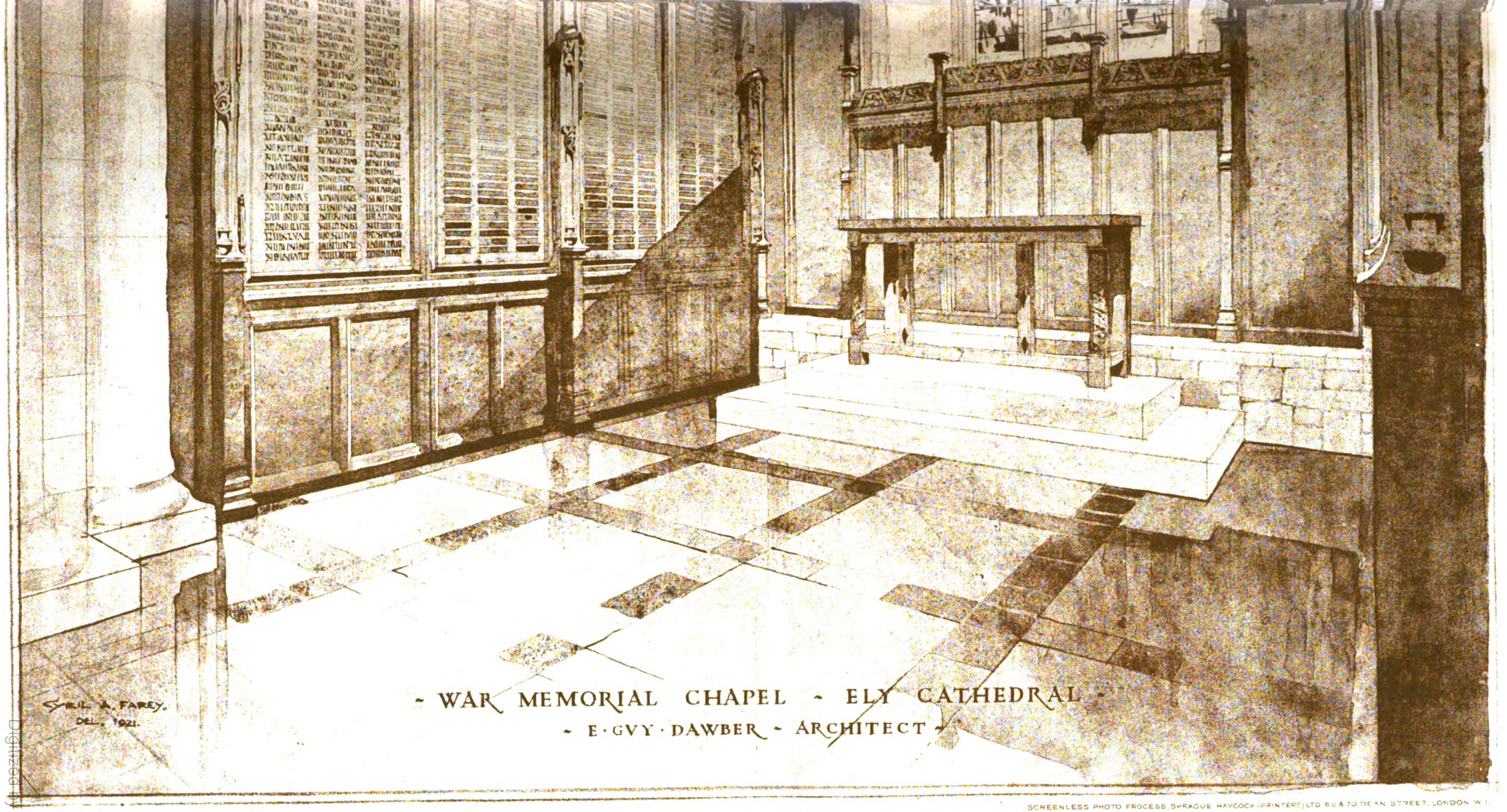
This great event in Gandon's life may be considered to have been, again through the instrumentality of his good friend Sandby, his introduction to the Earl of Portarlington, then Lord Carlow. Lord Carlow, who, like many educated men of his day, had a considerable taste and knowledge in architecture and the arts generally, in turn, brought him under the notice of the Right Honourable John Beresford, Commissioner of Revenue, and one of the great Beresford family, then all-powerful in the Government of Ireland. This introduction influenced the whole of Gandon's life, and determined his career, as it led to his being entrusted with the commission for the Custom House. Another valuable introduction of Lord Carlow's was to Dean Bourke, afterwards Archbishop of Tuam, and Earl of Mayo, who immediately took the warmest and kindliest interest in Gandon's welfare, losing no opportunity of serving his interests. About this time Gandon was very busy, and living in very comfortable rooms in Oxford Street. In 1771 he took a house of his own, No. 40 Broad Street, and soon after found himself in a position to marry a lady to whom he had long been attached. In 1776 he entered into a competition for a Lunatic Asylum, known as the Bethlehem Hospital—a huge work. He succeeded in gaining the first premium of one hundred guineas, but had the mortification of finding his designs handed over for execution to a nonentity.

In 1779 Sandby introduced him to the Princess Dashkoff, an accomplished Russian lady, then on a visit to London, and who is referred to in Horace Walpole's correspondence. She proposed to him to go to St. Petersburgh, and offered to procure him important commissions there; but as shortly afterwards Lord Carlow communicated to him a proposition to visit Ireland, Gandon declined the Russian offer, and elected to go to Ireland. In 1780 Beresford was in London, and his first letter to Gandon in that year asked him to call in reference to "a new plan for a building of a public nature in Ireland." This resulted in Gandon's going to Ireland in April 1781, and the Custom House was then begun. There was much opposition amongst the merchants and others to the new project. The site was regarded as very unsuitable; so strong was this feeling that it was considered expedient that Gandon's presence in the City should not be known. Poor Gandon in these circumstances felt himself very uncomfortable, he could not present his letters of introduction, and he was in dread lest his "abrupt departure from his family and establishment in London might injure his character." Gandon was some time in Dublin before he ventured to inspect the site, a view of which much alarmed him in regard to how the foundations might be laid. The river overflowed near a square mile of the surface. After a delay of three months he received orders to proceed. While naturally delighted at a commission of such an extent, he felt regret at being compelled to hurry forward without opportunity of full consideration a plan of such magnitude. Gandon endeavoured to secure assistants from London, but had to start without them. He engaged workmen, and on July 10, 1781, a meeting of the principal artificers was held and the general plan of the first section marked out. The foundation-stone was laid on August 8 following, without any ceremony, as it was feared a riot might occur. In September the High Sheriff, accompanied by Napper Tandy, an influential member of the Corporation, who subsequently became a General in the service of France and the hero

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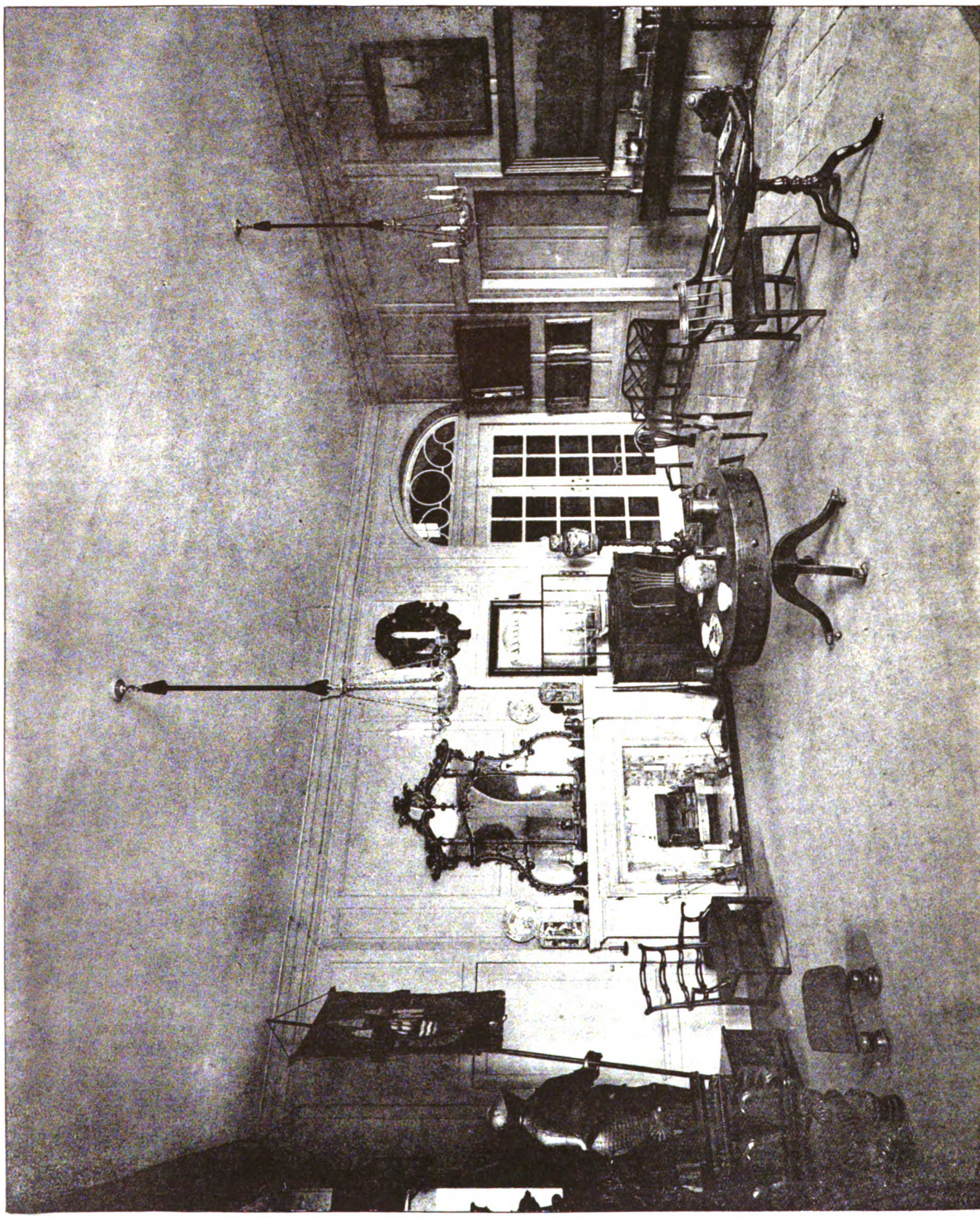
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Royal Academy Exhibition, 1921.

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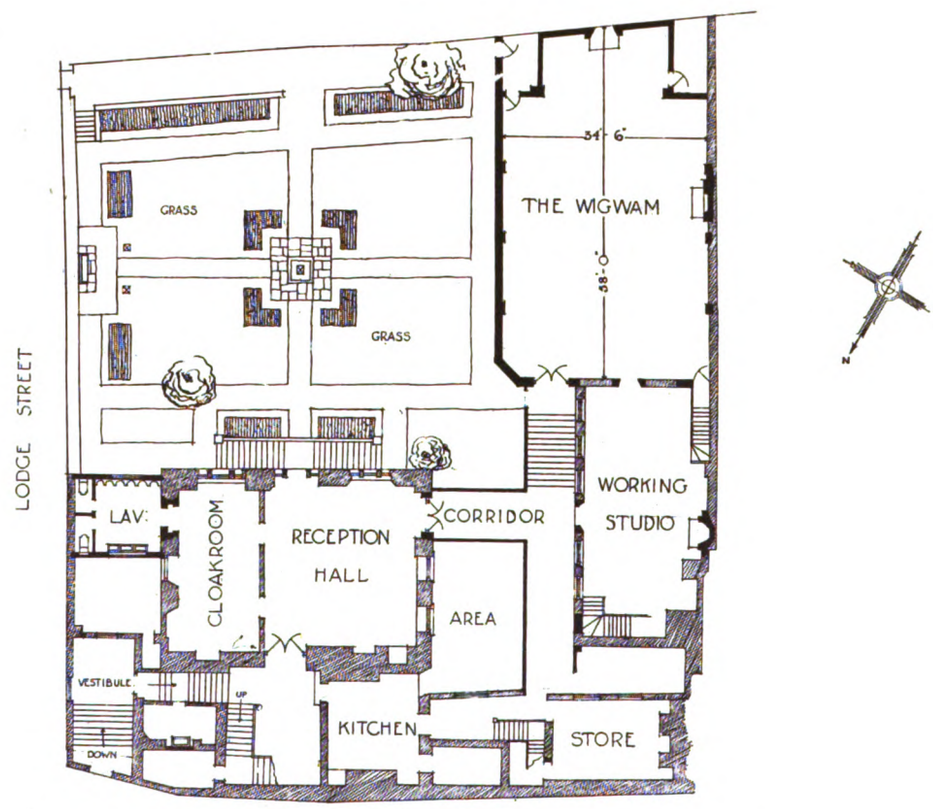
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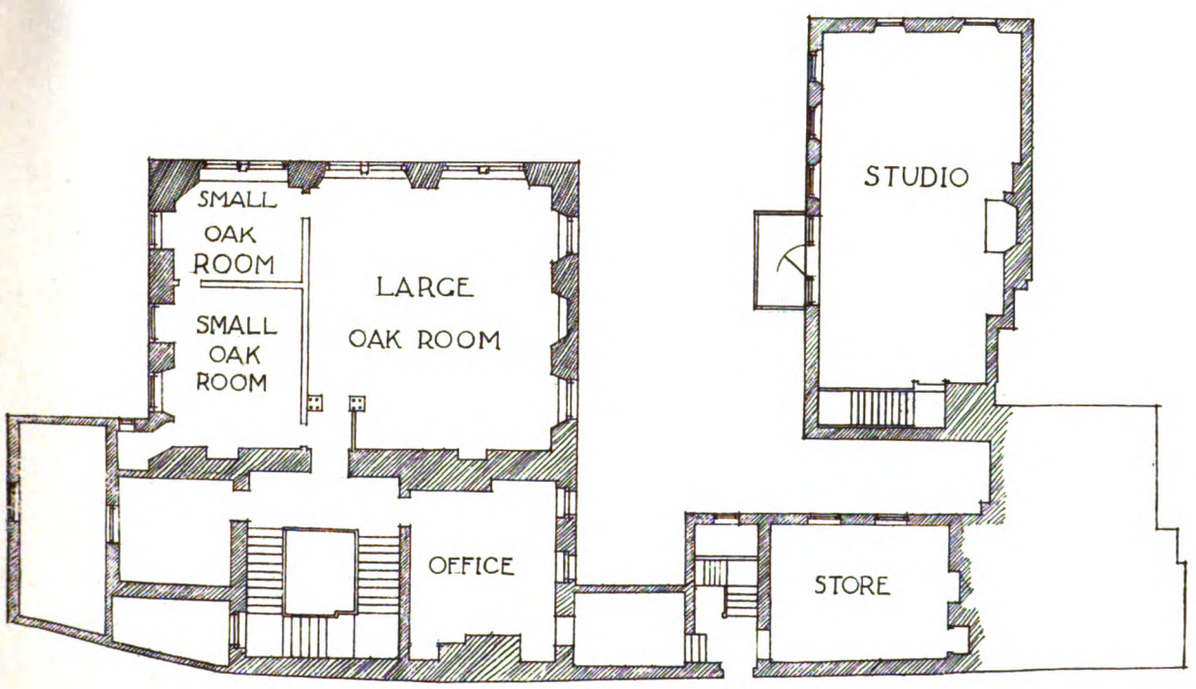


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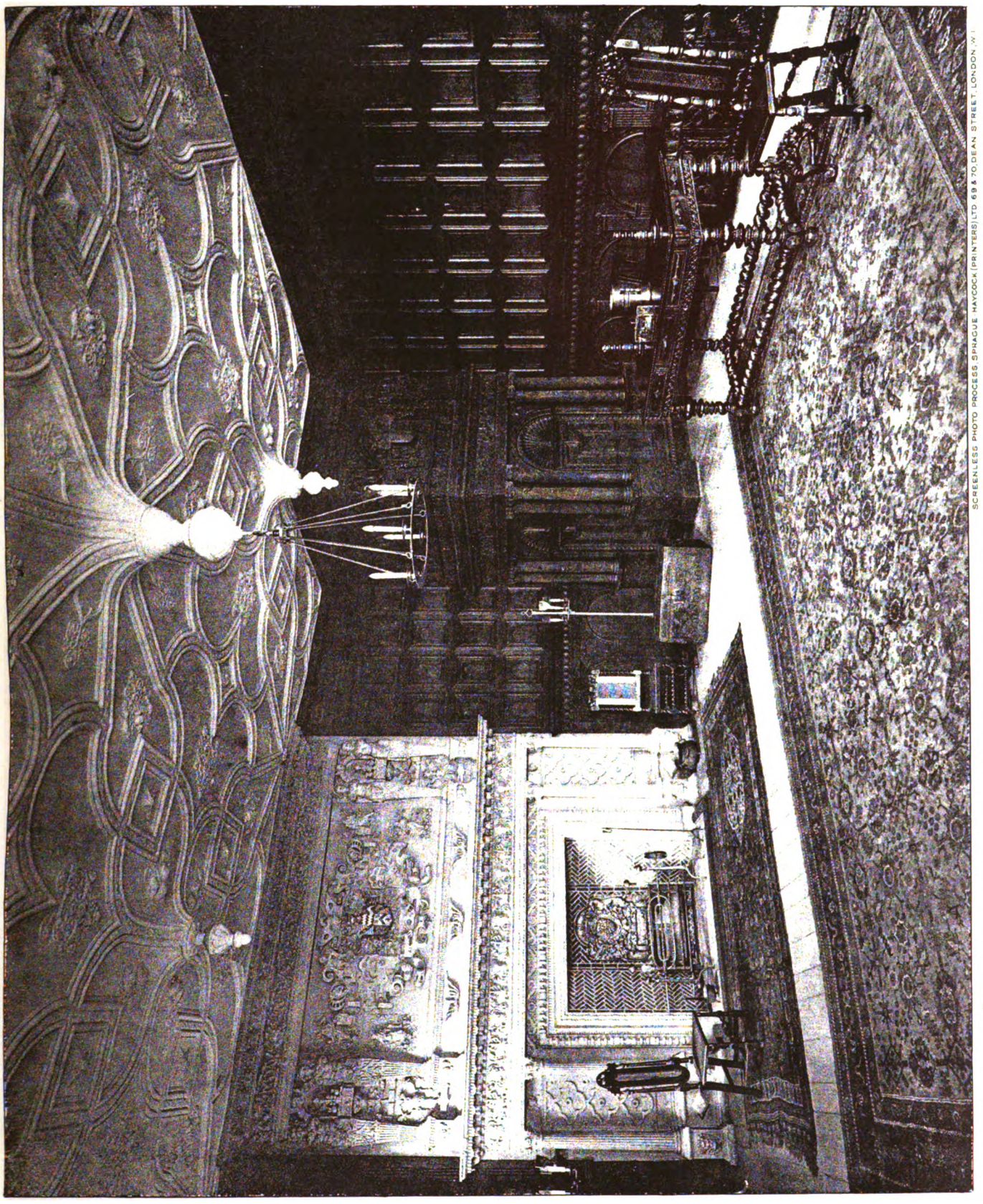
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of the popular Irish air, "The Wearing of the Green," with a large following came on the site and levelled the enclosing fences. In the notes made by Gandon he has left an interesting and detailed description of the countless difficulties he encountered from first to last in this building.

Water was come upon at two feet when the foundations had been opened. The difficulties in sinking the foundations were very serious, necessitating sheet-piling, and constant pumping, but Gandon managed to overcome them all, displaying skill and resource. His drawings showing his scheme of sheet-piling, &c., are still in the possession of the Office of Works. Having seen a satisfactory beginning made, Gandon returned to London to dispose of his house, his wife's serious illness hastening his departure from Dublin. Unhappily her illness proved fatal, a blow he felt very severely. He remained in London until the following March, when he returned to Dublin accompanied by his children, one son and two daughters, and also by his clerk of works, Harman. From thenceforward to the time of his death Gandon resided in Ireland.

During his absence in England the East Wing had progressed well, considering the obstacles met with. The north and south fronts were now commenced.

The period at which the Custom House was begun and carried on was the great era of Ireland's prosperity under Grattan's Parliament. The eighteen golden years from 1782 to 1800 was a period during which Ireland advanced in the arts, sciences, and commerce, in culture, and in the increase of material wealth, in a manner not equalled by any other nation. Many stately buildings were erected in Dublin, and new streets laid out, the principles of town-planning being well understood. By the end of the century Dublin had become as stately a city as any of its size in Europe.

A couple of years after his return to Ireland Gandon was asked by the Marquis of Waterford, the head of the Beresford family, and elder brother of the Right Honourable J. Beresford, to design a court-house for Waterford, and the foundations were begun in 1784. For the next two or three years Gandon was very busy, in particular, in connection with the sculpture of the Custom House. Joseph Banks and Carlini made models for the figures to be placed over the north and south fronts. About this time, however, Henry Darley, who was the master mason at the Custom House, introduced to Gandon's notice Edward Smyth, a sculptor of real genius, who had carved the statue of Doctor Lucas, the patriot member of Parliament for Dublin, which stood in the hall of the Royal Exchange, now the City Hall. When he came to Dublin those who brought him to Ireland led him to believe that no work of art could be produced in Ireland. That, unhappily has been the traditional attitude of mind of too many of the Irish aristocracy. Gandon was quick to realise the genius of Smyth, and gave him drawings for the ornamentation of the interior of the dome. The models which Smyth produced immensely impressed Gandon. Soon after, Carlini's model for the Royal Arms to be placed over the eastern and western wings or pavilions of the north and south fronts, arrived. Gandon asked Smyth to make a model for the arms—Smyth's was so superior that Gandon declared "This will do; this is the artist I require," and immediately assured Beresford that there was no necessity to go beyond Dublin for an artist of the highest capacity.

Smyth is described as of a singularly modest and retiring disposition, rather depressed that his genius had not been more appreciated; his occupation being chiefly that of modelling ornaments for chimney-pieces. The genius of Edward Smyth is inseparably associated with the Custom House, which he enriched and beautified by his art. I have not space here to give details of Smyth's life and works, of which a full account will be found in Mr. Walter Strickland's excellent and monumental "Dictionary of Irish Artists." His work at the Custom House, the statues, and in particular the river-gods' heads in the keystones are incomparably good. One of the consolations that remains to us since the recent fire is the knowledge that almost all Smyth's great work, save the ornament inside the dome, has escaped comparatively uninjured. Gandon himself has put on record his opinion of Smyth's work. "The statues to the north front, representing the four quarters of the world, are done by that excellent sculptor Mr. Joseph Banks, those of Neptune and Mercury by the late Agostine Carlini. The colossal statue of Commerce, with the bas-relief in the pediment, with the key-stones representing the principal rivers of Ireland, some of which are equal to Michael Angelo, and all the rest are executed by Mr. E. Smyth, a native of Ireland, a gentleman who, without having had the advantage of travel, or opportunity of seeing many specimens of sculpture, has given proofs of abilities equal to any in the three kingdoms." Smyth's son, grandson, and great-grandson, were all sculptors. The latter, Mr. George Smyth, is alive and practising as a sculptor in Dublin.

While the Custom House was going on Gandon declined many commissions, but he carried out several of much importance. One of the chief was the additions to the Houses of Parliament, which came through the recommendation of James, Earl of Charlemont, and the Earl of Portarlington. The former he had first met while in Chambers' office, and the acquaintance was renewed when Gandon came over to build the Custom House. The work which Gandon did at the Parliament House consisted chiefly of the new entrance and Corinthian portico to the House of Lords. This he connected with the south front by a circular ornamental wall, a masterly expedient, that gives a unity and unique effect to the building.

Lord Charlemont was a typical example of the cultured and travelled Irish nobleman of his day. Superior in mind and outlook generally to his contemporaries, he became the foremost dilettante of Ireland, the chief patron of the arts; and in the political world a leader of opinion. He was regarded as the great patriot of Ireland in his time, becoming the Commander-in-Chief of the Irish Volunteers, originally formed to defend the country against a French invasion, but eventually to obtain the privilege of Free trade and an unfettered Parliament from England. Their movement culminated in the famous review in College Green, celebrated in Wheatley's painting, when their guns bore the significant legend, "Free trade or this," ultimately resulting in Free Trade being granted, and England for all time disclaimed the right to pass laws for Ireland, and accepted the declaration of the Irish Parliament "that there is no body of men competent to make laws to bind this nation, except the King, Lords, and Commons of Ireland, nor any other Parliament which hath any authority or power of any sort whatsoever in this country, save only the Parliament of Ireland." This being communicated to the King, the British Legislature acceded to the demand. This also removed Irish appeals from the English House of Lords, and permitted duties to be levied on English imports passing into Ireland, a right not abrogated until 1820, or twenty years after the Act of Union.

Lord Charlemont was a great friend and patron of Chambers, who furnished him with designs for his stately town mansion in Palace Row, now Rutland Square North, and for the exquisite little Casino at his suburban residence Marino, Clontarf, now, alas! falling into complete decay, through neglect. Those who admire the genius of Chambers, might well, indeed, endeavour to frame some measures for its preservation.

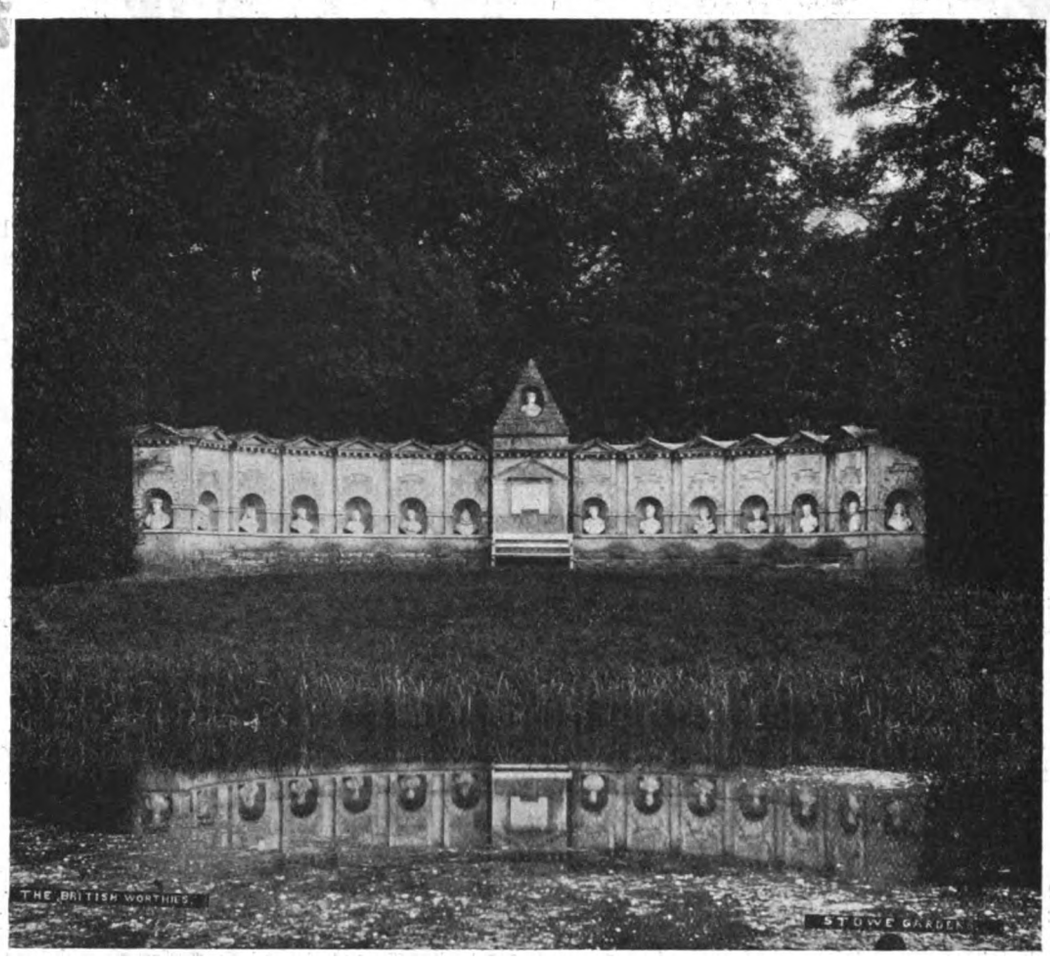
Lord Clarlemont was in 1785 elected first president of the Royal Irish Academy, of which body Gandon himself was an early member.

Gandon also completed the Four Courts, as the Irish Courts of Law are called, begun by Thomas Cooley in 1776; designed old Carlisle Bridge over the Liffey. For the design of the Four Courts, as ultimately realised, Gandon was mainly responsible. The foundation-stone was laid March 3, 1785, but work had been begun on October 1, 1784. His last great work was the King's Inns. For Lord Charlemont he designed the library of his house in Rutland Square.

(To be continued.)

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Stowe, the Home of the Temples.



THE TEMPLE OF BRITISH WORTHIES, STOWE GARDENS. Busts by Rysbrack and Scheemakers.

Was it not Horace Walpole who, on the lines of the famous epigram on the Herveys, divided the human race into men, women, and Temples, even as Richardson had oddly classified the characters in "Sir Charles Grandison" as men, women, and Italians? And now that Stowe is for sale, it may be well to consider briefly certain features of that great estate which are less familiar than they should be, and to give some brief account of a place which was leased by a Temple early in the reign of Queen Elizabeth, bought by the son of that Temple in January 1590, and rebuilt and beautified by one generation after another.

It was Viscount Cobham, gloriously celebrated by Pope in the first of the Moral Essays, who rebuilt the house (though the wings are a later addition) and laid out the grounds under the direction of Kent and others, the famous "Capability Brown" of landscape gardening fame being originally an under-gardener in his employ. The house itself, a magnificent structure, of a stateliness hardly to be paralleled elsewhere, though Walpole thought the later wings "pompous," has been so often described and illustrated that it seems best to devote our limited space to an account of the grounds, their structures and monuments, which aroused now the criticism, now the not facile enthusiasm of Horace Walpole, and employed the pencils and chisels of many famous architects and sculptors. Our guide in this matter shall be the illustrated quarto of 1817, which has the advantage of the older and better known guide books in embodying the improvements of the Marquess (afterwards Duke) of Buckingham, the last possessor of Stowe to add appreciably to its magnificence.

Passing under a magnificent Corinthian arch sixty feet wide and sixty feet high, originally used as a lodging for the keeper, we approach the south entrance to the gardens and two stately pavilions altered from Kent's designs, noticing on the left a cascade falling from some artificial ruins into a lake, on the bank of which is a Hermitage, also designed by Kent, like the charming Temple of Venus of the garden near by. Much more startling to modern taste is the statue of Queen Caroline on a base composed of four Ionic columns with the inscription Divæ Carolinæ, which made even Walpole smile, but the Boycott Pavilions, admirable late examples of the work of Vanbrugh, are very pleasing, as is the stately gateway to the Oxford Road visible from these pavilions, though the wings added by a later hand somewhat spoil the effect of Kent's entrance. The neighbouring Temple of Bacchus, another excellent work of Vanbrugh's, with its flanking statues and interior paintings by old Nollekens, gives an admirable view across the lake, but Walpole mocks at Scheemakers' equestrian statue of George I. with its pompous inscription, though he admired the Rotondo, another design of Vanbrugh's, a charming little domed building containing a statue of Bacchus, and found the Temple of Ancient Virtue "glorious." As one of the party invited, he spends many lines of description and commendation on the Doric Arch leading into the Elysian Fields, built by Lord Temple in commemoration of the Princess Amelia's visit in 1770, in a grove of orange-trees, and commanding a glorious prospect, "comprehending more beauties of light, shade, and buildings than any picture of Albano I ever saw," and, indeed, the view, framed by the arch, is of extraordinary beauty and variety.

The Temple of Ancient Virtue, the noblest of the many garden buildings of Stowe and one of the masterpieces of classic architecture in England, is certainly the chef-d'œuvre of William Kent; its interior contains four statues of Lycurgus, Socrates, Homer, and Epaminondas, all by Scheemakers, and the beauty and dignity of the little building form a curious contrast to the poverty of conception and execution which distinguishes the similar building by the same architect—the Temple of British Worthies, with its niches and busts ranged on either side of a statue of Mercury, and

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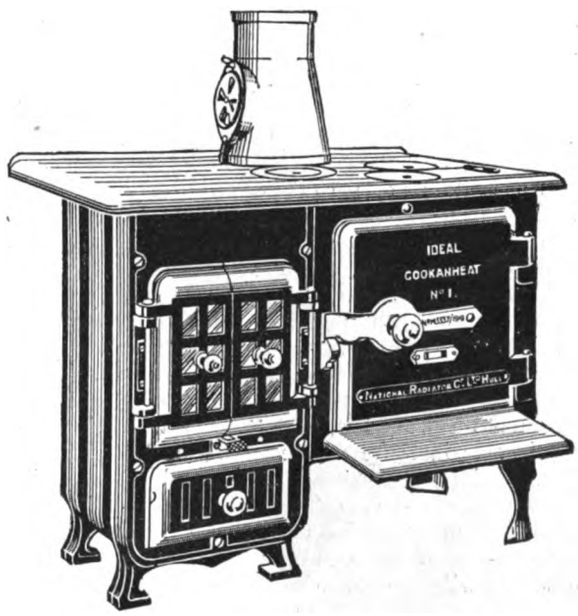
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embracing such diverse characters as Pope, Gresham, Inigo Jones, Milton, Shakespeare, Locke, Newton, Bacon, King Alfred, the Black Prince, Elizabeth, William III., Raleigh, Drake, Hampden, and Sir John Barnard. "All these images" as Walpole wrote, "crowd upon one's memory, and add visionary personages to the charming scenes that are so enriched with fanes and temples, that the real prospects are little less than visions themselves."

A tall *columna rostrata*, to use the Roman term for a naval monument, adorned with the beaks of ships, commemorates the gallant sailor, Captain Thomas Grenville, who won his laurels under Anson; an ancient sarcophagus placed on a pedestal carved with a marble medallion of Captain Cook, records another noble sailor; and an obelisk inscribed to General Wolfe, and the stately Temple of Concord and Victory, originally designed by Kent, but completed in 1763, "as a monument of the glories of the War terminated by the Peace of Fontainebleau," with its pediment sculptured in relief by Scheemakers, its statue of Liberty, and its fourteen medallions commemorating episodes of the war, completes the series of monuments devoted to the history of English greatness.

Gibbs's monument to Lord Cobham, the originator of the glories of Stowe, is frankly a poor affair, but the Palladian Bridge, a copy of that by Inigo Jones at Wilton, is a most beautiful structure, which is more than can be said for the terrible Gothic Temple near by, which its chapels, armorial bearings, and "arms of the Saxon Heptarchy," which Horace Walpole "adored," finding that "by some unusual inspiration Gibbs has made it pure and beautiful and venerable." The Temple of Friendship, however, with its marble "busts of the late Viscount Cobham and his political friends," furnished Walpole with several sly jests at the risk of such commemorations in the shifting scenes of eighteenth-century politics, and references to it, rather as pointing a moral than as "a large structure of the Tuscan order" are frequent in his letters.

If Kent's Temple of Ancient Virtue is his best work, his monument to Congreve is probably his worst. Pastoral pipes and Bacchic emblems alluding to his success as poet and dramatist, with a reclining figure of Congreve on one side and a long inscription on the other, are surmounted by a figure of a monkey surveying himself in a mirror—one of those lapses of taste which drew upon Kent the wrath of Hogarth, and which certainly does something to justify that wrath.

Space does not permit us to describe the Grecian Valley adorned with statues, the Fane of Pastoral Poetry with its aged oaks, or the picturesque beauty of the Elysian Fields; and dwell upon the Bourbon Tower, with its expressions of loyalty to the restored Louis XVIII., or the Queen's Building, with its medallion of Britannia sacrificing to Aesculapius on the King's recovery in 1789; we can only hold our hand and cry with Walpole, that human key to the full gamut of the harmony of eighteenth-century life, that "every acre brings to one's mind some instance of the parts or pedantry, of the taste, ambition, greatness of those that have inhabited, decorated, planned, or visited the place," and with Charles Lamb at Blakesware, that "the old marble heads would seem to live again, or I to be turned into marble with them."

Correspondence.

Unification and Registration Committee.

To the Editor of THE ARCHITECT.

SIR,—Mr. Arthur Keen is such a hard-working, good friend to the R.I.B.A. that we are loath to criticise him, but we do respectfully suggest that the letters of our Hon. Secretary should be accurate, whether the matter be Registration, Unification, or the Improvement Scheme carried out at the Marble Arch. Mr Keen refers to the report of the Committee, but it has made no report. The facts for Mr. Keen's information are as follows:—

The Sub-Committee made a report in April, this was considered by the Committee in May, and the following resolutions were passed:—

1. That the principle of Scheme A—namely, the bringing of all the architects of the United Kingdom into membership of the R.I.B.A.—be adopted as the basis for unification.

2. That the matter be referred to the Sub-Committee to consider details and report to the main Committee.

3. That the Committee recommend the Royal Institute to draft such alterations to its Charter and By-laws as may be necessary to comply with the principle of Scheme A, adopted this day by the Unification and Registration Committee, and to confer with the Council of the Society of Architects as to conditions of membership.

4. That six additional representatives of the allied societies be selected by the Chairman and Vice-Chairman from the members of the main Committee to serve upon the Sub-Committee.

If Mr. Keen will kindly compare our previous letter (see "THE ARCHITECT," June 17, p. 414) with the above resolutions he will see it was based upon those conclusions.

Unification is practically impossible without first obtaining Registration. We must follow the example of the dentists and pass a Registration Bill before we tamper with our constitution. We hope Mr. Arthur Keen agrees.

Yours obediently,

W. S. CROSS (Vice-President).
H. D. SEARLES-WOOD (Vice-President).
GEORGE HUBBARD (F.).
SYDNEY PERKS (F.).
DIGBY L. SOLOMON (A.).

Liverpool Conference.

To the Editor of THE ARCHITECT.

SIR,—I appreciate my friend Mr. Keen's well-meant defence of the Institute, although I made no complaint or accusation against that body, but merely stated facts. Of course it would never have done to have omitted the Architectural Association, and if when Unification and Registration was in the forefront of the Conference it was necessary to draw the line, how very characteristic of the "unique, greatest, and most effectively organised body of architects in the world" (I quote their distinguished President) it was to omit inviting representatives of the Society which, as was so generously admitted by a member of the Institute at the Conference, has brought the question to the front and rendered great service to the profession.—Yours, &c.,

C. MCARTHUR BUTLER, Secretary.

The Society of Architects,
28 Bedford Square, London, W.C. 1.
July 8, 1921.

Central Heating.

To the Editor of THE ARCHITECT.

SIR,—Is central heating an unqualified success?

From my experience, I say emphatically it is not. As I sit in my office, where, when occasion requires, I may put the radiator into operation and raise the temperature to a comfortable degree.

The walls were distempered to a restful shade of green up to picture-rail height, from there up to ceiling height a cream white, and the ceiling a milk white.

Now the green is well-nigh invisible, the cream is transformed into a nameless grimy mess, the beams across the ceiling are of the same Cimmerian hue. Near the heating-pipes passing through my room the shade is intensified.

To qualify the dryness of the heated atmosphere I put a jar on the radiator against the wall, the result being an unsightly grimy streak on the originally green and white wall up to the ceiling. The room is now so grimy as to give the impression of a fog that has come to stay. The pipes are coated with aluminium paint.

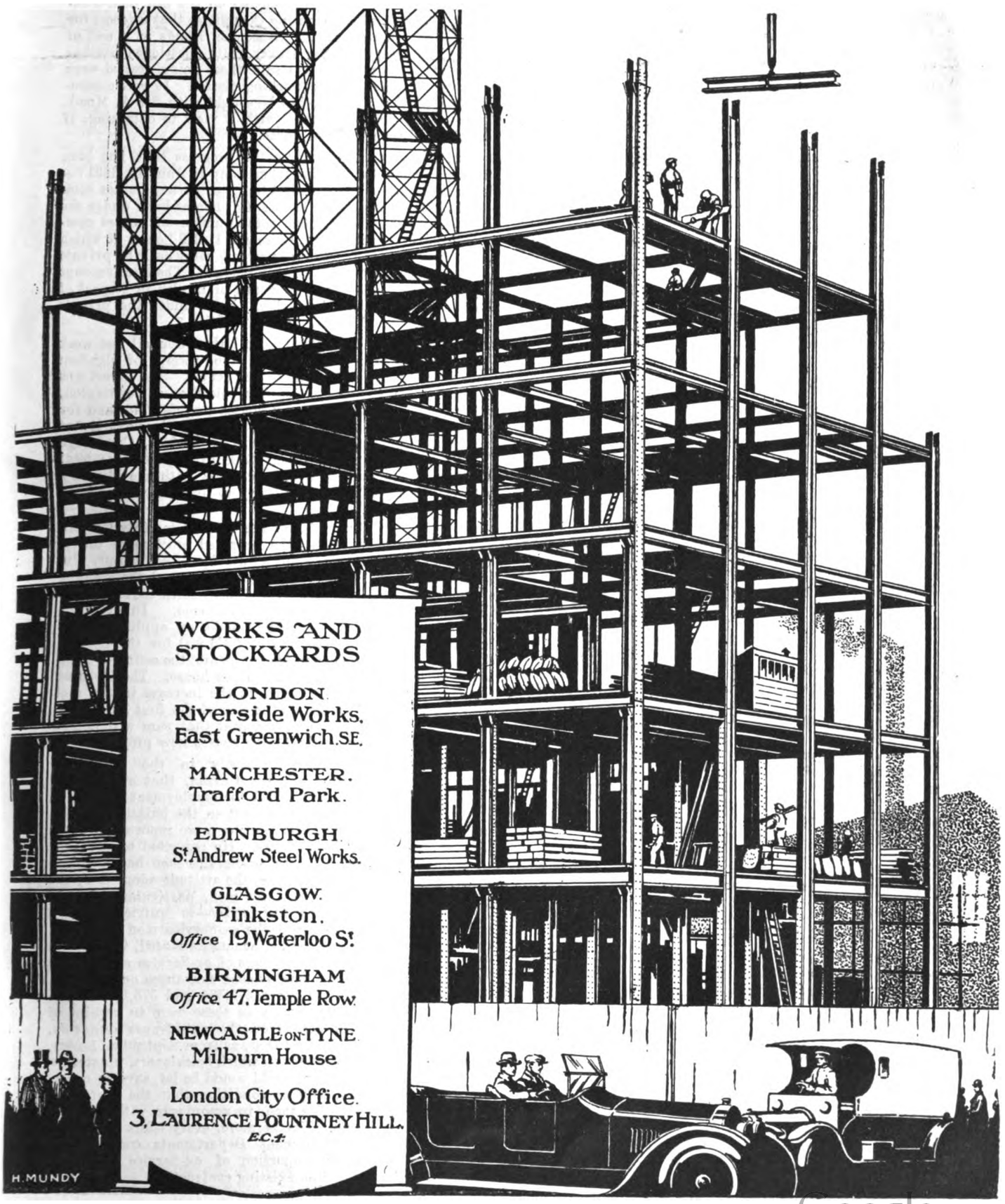
That this very objectionable effect is produced by the pipes and radiators I am convinced by close observation in other places. It is a defect that must be remedied somehow, because not only walls and ceilings are coated with a deposit of grime, and papers, plans and documents, but carpets, curtains, furniture, and the clothing of the occupants of rooms (who inhale the air) are also impregnated with this impurity.

The costly display of burnished goods for electric lighting displayed for sale below my office are so seriously damaged by this injurious deposit that the tenants are being put to considerable expense in the endeavour to protect their goods by fixing shelves over the radiators. It is doubtful if this will have the desired effect. If not, what will?—Yours, &c.,

F.S.I.

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CONSTRUCTIONAL ENGINEERS



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General.

THE Albany Ward Theatres, Ltd., have acquired extensive premises in High Street, Exeter, for the purpose of erecting on the site a super-kinema, capable of accommodating about 2,000 people, together with a restaurant.

THE Todmorden Town Council has decided to employ direct labour in their painting work, it being alleged that the charges made by the local tradesmen in their contracts were exorbitant and unreasonable.

ALL communications respecting the business of the Industrial Council for the building industry (Building Trades' Parliament) should now be addressed to the newly appointed Secretary, Mr. A. J. Lloyd, Dacre House, 5 Arundel Street, London, W.C. 2. Telephone: City 4220.

A NEW method of naming streets has been adopted by a sub-committee of the Glasgow Corporation's Watching and Lighting Committee. On the suggestion of the Master of Works they have agreed to name the twenty-five new streets at the Kennyhill and Riddrie housing schemes after rivers or lochs in Scotland.

A MINISTRY OF HEALTH inquiry was held last week into an application by the Doncaster Rural Council for sanction to borrow £39,000 for sewerage works and £4,200 for a water supply for the parishes of Barnby Dun and Kirk Sandall. The expenditure is necessary to cope with the large glass-works and 2,000 houses which Messrs. Pilkington are erecting in the neighbourhood.

THE national conference of the Building Guild, which was postponed from April 16 owing to the threatened strike of the Triple Alliance, is to be held in Manchester on July 23. The purpose of the conference is to place the Guild on a national footing, and on this question a report will be presented by a special committee. It recommends the formation of regional councils, each representing not less than ten Guild committees. It also suggests that a national board should be established to act as the governing body of the Guild.

THE value of the Government subsidy in encouraging builders and others to erect dwelling-houses is the subject of comment in the annual report of Mr. Duncan M'Kinlay, the chief sanitary inspector for the Upper District of Renfrewshire. The building department, he says, has again enjoyed something like its pre-war activity. While the marked increase in the number of dwelling-houses for which plans were approved is almost entirely due to the special Government grants, it is not so easy to explain the reason for the special spurt in connection with commercial undertakings. Several fairly large new works have been erected, and large and important additions made to existing works. The total value of the work authorised was £548,882, of which £290,030 represented commercial buildings.

AT Blackpool last week the National Association of Master Plasterers, affiliated with the Scottish Master Plasterers' Association, and the Confederated National Associations of Master Plasterers, Plumbers, Slaters, and Painters, held a conference in the Central Library. In a communication to the Press, when the conference rose, the secretary reported that the membership now approaches 1,000. A long discussion arose on the Government's scheme of dilution in the building trades in favour of ex-Service men, the conference finally deciding unanimously that the scheme was unworkable owing to the hostility of the operatives in the building trade. The shortage of plasterers as a factor in holding up housing schemes was debated, and the conference decided to endeavour to augment the number of skilled operatives in the trade, and to seek the co-operation of the operative plasterers' organisations.

Housing News.

THANET Rural District Council has abandoned its housing scheme after having spent £1,328 on the sites, and £3,843 on architects' and other professional fees.

AT the last meeting of the Lower Ward District Committee of Lanarkshire, the Chairman intimated that plans had been passed for the Millerston and the Eastfield, Rutherglen, housing schemes to the total value of £160,000, providing for 178 houses between the two schemes.

THE Scottish Board of Health have approved the estimate of the Glasgow Director of Housing for 264 houses at Drumoyne, amounting to £240,339 3*s*. 6*d*., but that they proposed that the oriels in houses of the F 2 type be omitted. The Housing Committee agreed not to accept the suggestion of the board.

THE Torquay Town Council, on the 5th inst., decided to apply to the Minister of Health for permission to proceed with the completion of the Westhill estate, where it is proposed to build about 160 brick and concrete houses. The scheme had previously been before the Council but had been referred back to the Housing Committee.

AT the monthly meeting of the Scunthorpe and Frodingham Urban Council the clerk reported that he had received the sanction of the Ministry of Health to the borrowing by the Council of the sum of £180,000 for the erection of the houses comprised in Messrs. Tarrant's contract, and that the Public Works Loan Board were prepared to consider an advance to the Council of £100,000 as an instalment.

THE Bath City Council discussed on the 5th inst. a recommendation from the Housing Committee that a tender for erecting 194 houses at Englishcombe Fields at a cost of £144,530 be accepted. Sir Harry Hatt questioned whether the houses were needed, and said those being erected were not being tenanted by the working classes. It was eventually decided that an interview be sought with Sir A. Mond, the new Minister of Health, with a view to obtaining, if possible, a cheaper class of house.

THE following figures show the progress that has been made in State-aided housing schemes up to June 15, 1921:—Permanent houses completed, 1,844; temporary houses completed, 502; reconstructed houses, 67; houses built under the private subsidy scheme, 506; total number of houses completed, 2,919. In addition, there are 11,842 houses of which 1,655 are under construction at present, being built by private persons under the private subsidy scheme. The total amount of grant paid by the Scottish Board of Health in respect of the 506 houses which have been built under the private subsidy scheme is £123,273 6*s*. 8*d*.

AT a meeting of the Weybridge Urban Council last week the Housing Committee reported the receipt of eighteen tenders for the erection of 50 or 100 houses. The lowest was that of Messrs. Collison & Co., Walpole Works, Teddington, whose tender for the first fifty houses was £41,748, and for the second fifty £39,323; total £81,071. The next lowest tender was that of Messrs. Stevens & Horlock, Cambridge Works, Hackney, £42,841 and £39,323 respectively; total £83,046. The Council are negotiating with the Ministry with a view to obtaining authority to proceed with at least fifty of the houses.

THE Housing Committee of the Manchester City Council has prepared a report on the proposed erection of thirty houses on the Gorton Mount estate by direct labour. In March 1920 the Ministry of Health approved the erection of 100 houses by direct labour, and last month the officials of the Ministry agreed to extend the scheme. In February 1920 the City Council decided to make an application for borrowing powers for the sum of £441,900 for the erection of 491 houses on the Gorton Mount estate, the estimate being based on an average cost of £900 per house. The Housing Committee consider that owing to the increase in the cost both of labour and materials the cost of the first 100 houses will exceed £900 per house, but that that sum will not be exceeded in the case of the thirty houses now proposed.

DR. MACNAMARA stated recently in the House of Commons, in reply to Viscount Curzon, that over 18,600 ex-Service men had now applied for employment under the Government scheme for employment in the building trades, and over 200 were either at work or were reported to have been allocated among employers. He regretted to say that in a number of cases where ex-Service men had actually begun to work under the scheme, the attitude adopted by the operatives on the sites to these men, particularly in the London areas, had been unfriendly—so unfriendly in a number of cases as to cause the ex-Service men concerned to throw their work up. Dr. Macnamara stated, in reply to Sir W. de Frece, that the numbers of ex-Service men on the "live" registers of the employment exchanges on June 10, 1921, and March 4, 1921, were 472,374 and 378,184 respectively. A very great majority of these were in receipt of either unemployment benefit or the out-of-work donation, and that it had been decided that, as from September 1 next, contracts for the Government on which bricklayers, plasterers, slaters, and tilers were employed would be let, save in exceptional circumstances, only on condition that the contractor was employing ex-Service men, in accordance with the conditions of the scheme. Furthermore, every effort was being made by all the Government Departments concerned to ensure that a proper proportion of ex-Service men were taken on and employed on existing contracts.

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The "Plastic Idea" and other Fry-isms.

THE definition of the word plastic is "capable of being moulded." A plastic idea we should assume is one which has not attained its ultimate and final form. When we say that a man's opinions are plastic we usually mean that his views are not completely formed, and that they are in process of modification. We have said that Mr. Fry never defined his meaning in this respect, for though he subsequently used the expression it was with reference to an absolutely different subject—the manipulation of masses of three dimensions. He asserts that architects generally totally overlook the fact that they are dealing with three and not two dimensions, and puts down the chief part of the failure of their work to this fact. Now we assert that not only architects of eminence but also all but an inconsiderable section of architects are always conscious that they are dealing in building with a problem in three dimensions, and their whole training and the inevitable influence of practical facts prevents them from overlooking the point. Wren, who alone among English architects satisfies Mr. Fry on this point, was for the greater part engaged on the design of churches and other buildings, enclosing areas of space with which he was free, within certain limits, to deal with as he liked. His reputation to a large extent has been earned by the design of towers and steeples, in which he had absolute freedom not only to arrange his masses but also to arrange them without reference to any consideration but that of static stability. If, therefore, we wish to institute a fair comparison it must be between buildings having some affinity to one another, and we might instance Liverpool Cathedral, which Mr. Fry may not have studied. Had Wren to design a great block of offices on a site so costly that every foot had to be occupied to the fullest extent it may be doubted whether Mr. Fry would have been satisfied with the result. As it is, he is rather in the position of a man who drags a fishing net over dry land, or the Greek of legend who failed to milk the he-goat. But as we have pointed out he has never defined the "plastic idea," but has merely mentioned it and then talked about something else.

And with regard to our architecture expressing "historico-social" ideas, and not plastic ideas, what does Mr. Fry expect or want. The mediaeval baron wanted a building which could be easily defended, which contained a hall and some few sleeping chambers, and dungeons for prisoners, and the builder of those times gave it to him. Similarly, the great Elizabethan landowner wanted a house without fortifications, but with great reception rooms, and the master-builder or the architect of those times gave it to him. The eighteenth-century gentleman wanted a house with fine reception rooms and few conveniences as we now understand them, and the servants of that age were relegated to basements and garrets; whereas the man of to-day wants a house with more conveniences and luxuries, and the servants he employs need infinitely better accommodation. The builder and the architect have in every age and in every country to provide the community with what they are willing to pay for, or to starve by their refusal to do so. So far the architecture of every country must express the despised "historico-social" idea of the time and country, and we fail to see how they could ever be expected to take instead the undefined and elusive "plastic idea."

Mr. Fry rightly enough calls attention to the difficulty in modern times of producing buildings by mechanical processes which have the beauty of surface and texture of old work; but even here he would find, were his knowledge of modern building more extensive, that many architects have succeeded by care, selection, and thought, to at any rate partially modify the hardness and crudity of which he complains. That we can do so entirely, except in an occasional house in which usual methods common to the age are practically eliminated, is not to be expected, but many men have done praiseworthy work in this direction.

It seems to us that Mr. Fry has entirely missed or passed over two points which are more important in their bearing on modern architecture than those he has mentioned. The first of these is the dying out of tradition. The work of the past, in which we rightly set great store, was work produced not by an architect who designed every portion of a building, but by master-builders and architects who gave what may be described as general directions and settled the main lines of a design. They were seconded by a race of craftsmen into whose hands was committed the detailed design as well as actual workmanship of what was executed: when nothing was mechanically made (or only the simplest of fittings), and when every hinge, lock, and grate was the work of an individual craftsman, it is inevitable that mankind had the result of work which, whether it reached a high or mediocre level, surpassed in interest, variety, and all except meticulous finish, the work we have to make use of to-day. Everything was easier too, for if the site had to be built upon its relative value was so small that the economies of space and the requirements of light and hygiene were a small fraction of what they are to-day. Nor was the master-builder of the past hurried as the builder and the architect of to-day must be in many cases.

But there is yet another factor which weighs heavily against our efforts, and which to our mind is the greatest factor of all. We have the mechanical means, and perhaps the wealth, to build for Eternity as the builders of the Pyramids did, but we know that change and not permanence is the order of the modern world. We should find it difficult, if not impossible, to point out where and how any building could be built, the accommodation or situation of which would suit people 150 years hence. And if this is so with our great public buildings it is more surely so with our smaller private ones. What

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families can be said with any certainty to be definitely certain to want accommodation in any locality for a continuous length of years. We are not like the Arab tent-dwellers, but we live in an age which sometimes seems to be approximating to similarly nomadic conditions. And we are, each and all of us, interested in a great variety of changing pursuits, while the possession of even a moderate amount of money enables the man of to-day to tentatively seek pleasure, profit, or occupation in changing ways, before undreamed of. As the skein of Time unwinds we have to record gains here and losses there, and there can be little doubt that the losses imposed by modern conditions are those which tell with increasing weight against the arts as a whole, and architecture in particular.

We gather from what we have heard that Mr. Fry's denunciations pleased many who heard them, at which we are not surprised. It is always easy to gather a crowd by throwing stones at a dog, but that in itself does not settle the justice of the punishment meted out to the dog!

Illustrations.

THE OLD DAIRY FARM, EDENBRIDGE, KENT. The late MAURICE POCOCK, Architect.

Notes and Comments.

The Old Dairy Farm, Edenbridge, Kent.

WE are pleased to be able to illustrate by a fine series of photographs the admirable manner in which Maurice Pocock has restored an old house, known as the Old Dairy Farm, at Edenbridge. Pocock had a genuine love for and understanding of old English building, and the simpler and more rustic it was in character the better he appreciated it. In the building we illustrate he found a subject and task with which he was entirely in sympathy—an old building which many would have regarded as being past restoration, but which he, with care and skill and infinite pains, has converted into a delightful dwelling-place. Some of us like houses which contain "every modern convenience," some others buildings arranged on the lines of a sanatorium, and to neither of these would the Old Dairy Farm appeal, any more than to those whose fancy leans to the stately order and balance of a Georgian composition. But those who feel the appeal of our older traditional architecture will rejoice that an old English house has been preserved, possibly for a term of some hundreds of years, by one of the most successful restorations we have ever seen. We greatly regret that the untimely death of Maurice Pocock should prevent his reaping the advantage of his skill and insight into the "inwardness" of English building, but are glad to think he has left a son behind him to continue in his father's footsteps.

The Changed Policy of the Ministry of Health.

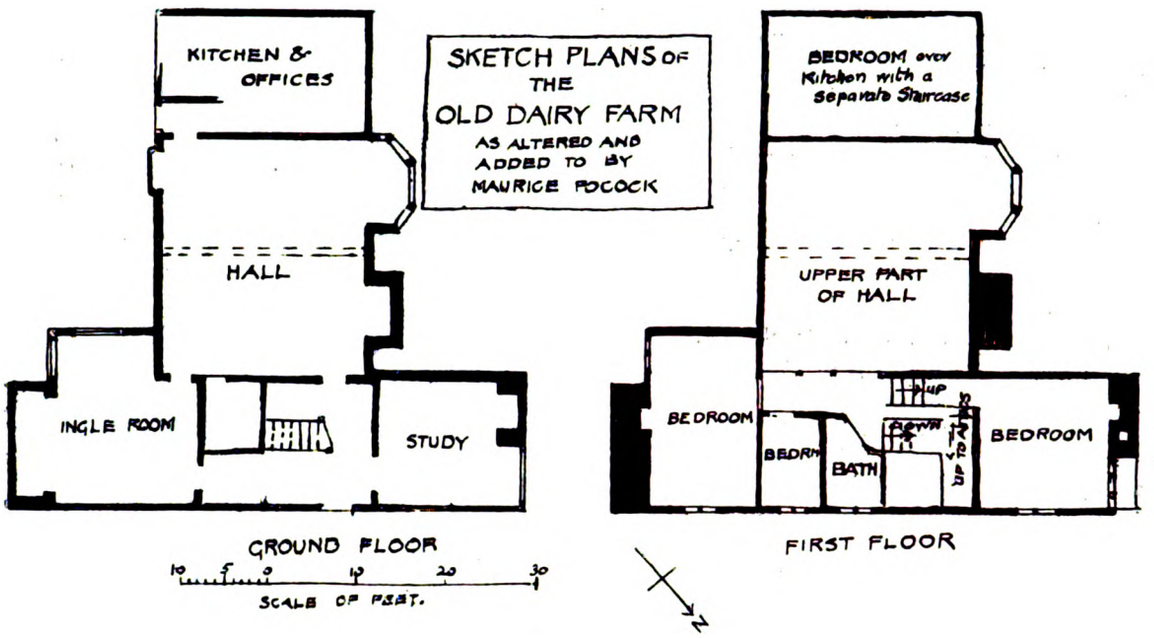
WE have had an interview with Sir Charles Ruthen which was interesting both in respect of what he said and what he did not say. With the former we are in complete agreement, and we recognise the skill with which those who reverse a policy avoid condemning it. We are told, not that 500,000 houses were not required, but that it would exceed the capacity of the industry to provide them; not that the whole policy was unsound, but as each house built means an annual charge on the State of from £50 to £90 instead of £10, the experiment was unduly costly *under existing conditions*. We are not told that the full programme will not be carried out, but simply that its fulfilment is postponed *sine die*. However, reading between the lines, we are perfectly satisfied that no attempt will be made to resuscitate Dr. Addison's plans, and we are quite pleased that this determination should be expressed in diplomatic language. We have alluded but briefly to the interview, for we find the daily Press have been accorded equally full and precise information as ourselves, and that they have already announced the facts referred to. So much for what was said; but what was unsaid was, we fear, withheld as Sir Charles Ruthen had nothing satisfactory to state to us. We refer to the question of the subsidy to private builders. Here a most definite pledge has been repeatedly given in Parliament by the Ministry of Health itself that the sum of fifteen million pounds should be expended in subsidies to those who within a given time erect houses fulfilling certain conditions. It is no answer to say that the price of building has fallen by 30 per cent. when at its greatest height it was 200 per cent. above the cost of building in 1914. It is no answer to say that under present conditions people can do without the subsidy. People have purchased sites, and even estates, for development under the pledge that the subsidy was to be continued until the middle of next year. The Government, in ending the subsidy, end at the same moment our trust in their honour and integrity of purpose. No promise they make can henceforth be regarded as a binding pledge. Were the total amount of the subsidy 150 millions *force majeure* might be advanced, but as regards the sum in question this is obviously absurd. Great as is the desire of the average man for economical administration, this breach of faith will be regarded with widespread dissatisfaction, and must produce a sense of insecurity infinitely more costly than the expenditure of the sum in question. In a word, it was open to the Ministry of Health to revise the conditions attached to the subsidy, but not to end it.

The Islington Town Hall.

THE controversy over the question of building a new Town Hall for the Borough of Islington seems to be attracting much attention, and we have been invited to inspect the existing buildings—an invitation of which we shall avail ourselves. We have little doubt that we shall see buildings which are overcrowded and inadequate for the accommodation of their occupants, for this we have gathered from the various professional reports we have read. We are also informed that a new Town Hall should have been built years ago, and would have been built had more progressive counsels prevailed. All this we are quite willing to grant beforehand, but the outstanding questions remain, and are these: (*a*) Can we be certain that the autonomy of the London boroughs will be retained in future years and that a large expenditure on permanent buildings is justified?; (*b*) If new buildings are to be erected, would it not be obviously reasonable to postpone an immense expenditure for a few years, when building prices will have dropped, in view of the high rates at present paid in Islington?; (*c*) Are there no large disused houses in the borough where some of the different departments of the Council could be housed as a temporary measure?; (*d*) Can effective dignity be given to the proceedings of the Islington Council even by surroundings of the most dignified architectural character?

These and other questions occur to us, though a visit to Islington may dispose of our doubts.

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THE OLD DAIRY FARM, EDENBRIDGE, KENT. THE STUDY.

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London Art Galleries.

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THE exhibition at the Twenty-One Gallery for June and July consists of a collection of Old Master drawings which are of considerable interest. The Italians are there, represented by Cigoli, Guercino, Parmigiano, and G. B. Tiepolo; but the interest of the drawings shown here centres in the Dutchmen, notably in the clean pen-line drawings of Jan Breughel, treating market folk, cattle, and beggars in the landscapes of his predecessor, P. Breughel (1525-1569), in the festive scenes of Jan van Steen, and the fine pen work of his contemporary, Van der Velde, or the admirably drawn "Boy drinking" of Gabriel Metsu (1615-1667), who came a little earlier. Lastly among these Dutchmen, who keep here, as a rule, their characteristic hold on the material things of life, is the cleverly drawn group of "Horsemen" by Van de Meulen. Cigoli, as the Tuscan Ludovico Cardi is frequently called, was a fine figure draughtsman, who had studied under Allori, and came later within the attraction of that great later master Federico Baroccio. The legend of St. Francis comes into his art in his painting of the Florence Academy, and occupies him here in a finely emotional drawing of the saint embracing the crucifix. But among the Italians here the most interesting is Guercino, whose "Magdalen at her devotion" has a sweet and sugary character which perhaps came to his later art under the influence of Reni. On the other hand, what a fine draughtsman Guercino could be when he trusted to himself is shown in the "Burial of a Saint" in this Gallery. The Magdalen is in red chalk; but this is pure pen-line work. Over the scene, crowded with figures, a wild wind storm is breaking, and the swaying trees give an intensity to the whole marvellous composition. Guercino has another drawing here of a seated boy; but neither this nor the female head in white chalk and crayon ascribed to Parmigiano, nor the study of a figure by G. B. Tiepolo, are on the same level.

At the National Gallery two recent additions to the French paintings are the group by J. F. de Troy, now lent by Sir Philip Sassoon, of a "Reading from Molière." This painting, one of the masterpieces of this artist, and signed and dated 1740, appeared at Christie's among the late Lady Lonsdale pictures in 1919, and is now hung in Room XXI. of our National Collection. In the next room (XX.) is now hung a portrait of a lady from Lord Taunton's collection, purchased recently out of the Temple West Fund. Although neither the name of the sitter nor that of the artist have yet been identified, it would seem from similar portraits in the Louvre collection that the painter was busied at the French Court from 1575-1580.

The Suffolk Street Galleries are now occupied by the first exhibition of the New Society of Artists. This Society is established on the principle of a proprietary club, the liability of each member being strictly limited to the amount of the annual subscription of four guineas, and to the commission of 15 per cent. taken in respect of sale of works exhibited. At the annual exhibition in the above Galleries each member will have the right to exhibit three works. The "Foreword" to the catalogue states that the practice of gradually reducing exhibits to a single line has led to an overwhelming demand by artists of merit for showing their works in London, and that this New Society has been formed "partly to meet that demand and partly to counteract the manifold evils of what has been described as Bolshevism in Art, which is in fact nothing more than a part of the general revolt against authority manifested in every walk of life." After this somewhat combative introduction we are prepared for an equally vigorous pictorial presentment of these principles; but it must be confessed that here we are likely to be disappointed. Between the extremists of Futurism, or, as the New Society would call it, Bolshevism in Art, and the commonplace character of Academic Art there is surely a modern art slowly forming itself—sane and individual, equipped with ideas, as well as the best in technique; and it should be the business of a New Society, such as this, to give expression to this movement.

Instead of this, the general level lacks originality and distinction. There are, of course, individual paintings of merit, such as Bridget Keir's water colours in the first two rooms ("Lobster-pots on the Lagoons" and Torcelli, Venice") and those of Maurice Chesterton and Molly Benatar ("Shadows"), as the finely dramatic "Samson Captive" of Herbert Gandy and the "Sun Rays, New Forest," of J. McEwan Brown. In figure work we have the dainty little Chinese maiden as "Lady Bedr-El-Budur," by Audley Gunston, in the first room; and in the Central Gallery two paintings by the Hon. John Collier, of which I prefer "The Minx" to the somewhat over-sweet "Hyacinths," as well as the well-drawn nude of "Syrinx" by Henry Haley and the charming "Moon at Midnight" by P. Caton Woodville. In the same room Reginald Hallward's "Solitude" has imaginative quality in landscape, and to be noted are Miss Morshead's "March Morning" and Isobel Nevill's "Glacier." The centre of this gallery is occupied by some very clever toy models ("The Beach," "The Workshop," "The Bathroom") by Hugh Gee, which might be of considerable use in exhibitions and elsewhere.

A modest but really brilliant little exhibition is that of E. Charlton Fortune at the Gieves Gallery, its subject being "Californian Landscapes." I understand that Miss Charlton Fortune has spent seven or eight years in study on this Pacific coast, and the result is remarkable. In the present torrential heat her purple seas eddying round the rocks (for her sense of movement in water is something extraordinary) make one long for a plunge. Her brush work has certainty and grip: her white gulls sweeping above the waves have the joy of movement, are flashes of imprisoned sunlight. I am told that Miss Charlton has just gone to Cornwall, and imagine she will find there an atmosphere she will soon make her own. She has a good position in California, and her "Wharf," shown here, won a silver medal in the Panama Pacific Exhibition. It is my belief that her work will soon be equally well known on this side. S. B.

Art News of To-day.

LAST week, in the sale of historic Stowe, which we mentioned in these columns in our last issue, it was the turn of the famous Brussels tapestries and the pictures of Stowe House to come under the hammer. The tapestries were famous creations, notably the five Leyniers panels which hung in the State dining-room, representing the triumphs of Bacchus, Ceres, Neptune, Mars, and Diana, having been presented to Field-Marshal Viscount Cobham by the officers who had served under him during Marlborough's campaign around Lille. Starting at 5,000 guineas, they fell at 8,000 guineas to Mr. Harry Shaw, who, as we have noted, was the purchaser last week of Stowe House itself. Mr. Shaw was over-bidden for the four Cobham tapestry panels, illustrating the siege of Lille, but was a successful and heavy purchaser for the pictures. One of the two Nell Gwynne portraits came to him, that by Kneller, and he acquired the famous "Diane de Poictiers at her toilet," now put down to the school of Clouet, after a sharp contest, for 265 guineas, as well as Kneller's three-quarter length of Richard Temple, Viscount Cobham, for 200 guineas.

We are informed that the finely illustrated volume on the late famous painter and etcher Anders Zorn, published this summer by "The Studio," is entirely sold out. The next "Studio" publication of first importance will be on the etchings of Charles Meryon, with reproductions of his most famous plates and a commentary by Campbell Dodgson, M.A., C.B.E., Keeper of the Prints at the British Museum.

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The Norman Builders of Gloucester Cathedral.

THE first evening lecture in connection with the joint summer meeting of the Royal Archæological Institute and the Bristol and Gloucestershire Archæological Society at Gloucester was given by Dr. Henry Gee, D.D., F.S.A., who is both Dean of Gloucester and President of the local society. Dr. Gee has been making a detailed investigation of the earliest records bearing on Gloucester Cathedral, and his aim was to trace a little more in detail than had ever yet been accomplished the various stages through which the great Church of St. Peter passed under the hands of the Normans. He did not refer to their methods of construction, to the quarries from which they obtained their material, or to the workmen whom they employed. He doubted whether it would ever be possible to re-write that story.

He (Dr. Gee) had lived for some years under the shadow of another great Norman Cathedral, where wealth was abundant, and yet progress at Durham was slow and extended over more than one generation of Norman builders. Slow progress was characteristic, indeed, of the Norman work of other English cathedrals, and under the influence of those examples he had constantly felt since he came to Gloucester that the building of the Norman Church was a much more protracted process than many who had written about Gloucester had believed. It grew by slow and painful progress through a large number of years. In that connection Gloucester differed from some other great foundations in that it possessed no relics of importance—no great centre of pilgrimage—during the Norman period. They certainly had the relics of St. Petronilla, but she had lived a very long time before. There was no body of St. Cuthbert brought to it as at Durham, no famous royal burial to attract visitors and to draw from them generous contributions to the fabric fund. In that respect the advantage lay entirely with the Priory of St. Oswald, which was close by and in a real sense a rival. St. Oswald's contained the relics of some important people, and its great treasure was the body of St. Oswald, the head of which lay—indeed still lies—in the feretory at Durham. Indeed, until the burial of the boy Harold in St. Peter's Church in 1168, there was nothing, so far as he (the Dean) knew, to attract gifts of money. Consequently, they had to look for other sources of income for carrying out extensive building schemes which must have involved vast outlay.

Now, there were two lines of evidence to follow up—the one documentary, and the other architectural—if they were to trace the history of the fabric. He (the Dean) would say frankly that he was no architect. It was rather a pernicious habit of Deans to claim to be architects, though they knew absolutely nothing about it and had never laid out a single plan. Nor was he qualified to express an opinion upon the architectural side of their investigation. That was being carefully studied by Mr. John Bilson, who was acknowledged both in England and France to be in the front rank of architectural students, and had also a very special right to be heard with attention in Gloucester because he had long been familiar with their buildings, and had recently spent much time in examining them closely on the spot. His (the Dean's) own contribution to the investigation was concerned entirely with the documentary side. He had had some dealing in his time with documents, and it seemed appropriate that if he were to speak at all he should confine himself to a province of research in which he had had a little experience. His purpose was to take such documentary evidence as existed in order to elucidate the history of the fabric of St. Peter's Church from the Norman Conquest down to about the year 1190. He went no farther than that year because, he supposed, the Norman epoch came to an end thereabouts, and because there was a fire in 1190 which gravely damaged the monastic buildings, succeeded by others in 1222 and 1223 which raised difficulties that lay outside his proper investigation that day.

What was the documentary evidence available for the years under review—that was to say from the first Norman abbot in 1072 down to his (the Dean's) lower limit in 1190? When Professor Willis dealt with the Cathedral sixty years ago (on the occasion of the first visit of the Royal Archæological Institute to the city) he said that Gloucester was particularly fortunate in possessing "a complete account of the building in the 'Historia' of Abbot Frocester, which gives every particular of the erection of the building, short of the actual building accounts, and thus enables us to date the particular parts of it more accurately than can be done with most other ancient edifices." He (the Dean) would remind his hearers that the years which had run their course since Willis gave his admirable address had been exceedingly fruitful, and that they had available means of knowledge in many directions which were illuminating. In the present instance the fuller sources of information were certainly not as full as they could wish them to be, and he feared that his hearers would be disappointed with the result; but it was quite certain that Frocester's "Historia" was not by any means the only historical document with which they had to deal. In point of fact the evidence was manifold, and although his (Dr. Gee's) examination of it could not be regarded as final, he was going to venture to put before them the various classes of evidence that they possessed, and to attempt a slight critical examination of them.

St. Peter's, Gloucester, was not known to have had a chronicler of its own in its early days. Their earliest local information was in the shape of a few twelfth century charters and grants. Unfortunately, they gave no details as to the buildings, but they must be mentioned as a highly important constituent element in their "apparatus criticus." The first surviving Abbey document that they possessed, apart from those charters, was that noble manuscript known as the Gloucester Cartulary, which was amongst the Exchequer documents at the Public Record Office. It was compiled long after t Norman period, at the end of the thirteenth century, and probably by Abbot Gamages (1284-1306), or, as he (the Dean) would like to think, by one of the learned monks of Gloucester who were in his time frequenting the University of Oxford. The Cartulary was mainly a collection of early deeds, charters, royal confirmations, and so forth, which were of prime importance as regarded the progress and possessions of the Monastery. Those documents, as set out in the Cartulary, ranged right back from about 1300 to the time of William the Conqueror, and whilst they incorporated, perhaps, some forgeries, were in the main, no doubt, copied from the actual grants themselves. For the present purpose they possessed some value in that they introduced definite reference here and there to the buildings, or the conditions, or some historical circumstance connected with the Monastery. The Cartulary was printed by Mr. Hart in the Rolls Series in 1863-70. In the next place, and a century later than the Cartulary, were the extremely valuable registers drawn up by Abbot Frocester, specially the "Historia," which was made generally accessible by Mr. Hart in 1863. The document was put together from at least four different sources about the year 1400 by Gloucester's first mitred Abbot.

Remarking upon the fact that the materials for reconstructing the documentary history of St. Peter's Church and of the monastic buildings generally were fragmentary and incidental, the Dean said a history of the estates could be compiled, but a full account of the buildings was impossible. All that could be achieved, so far as records went, was a vague outline of the story of the fabric, helped out by the comparative study of similar institutions elsewhere. Let them now see what that line of research would yield. At the Norman Conquest, then the Benedictine Abbey of St. Peter was forty-four years old, though it occupied a site which had a shadowy history long before that. He (Dr. Gee) would only trouble his hearers with one fact about the pre-Norman buildings: that Aldred, Bishop of Worcester, began a Church there which he dedicated to St. Peter in

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1058. William of Malmesbury was very emphatic as to the mere inception of the Church by Aldred, and there was no evidence that Aldred carried his work very far. The Abbot Wulstan in the difficult days that followed the Conquest went on pilgrimage and died in a foreign land in 1072. The monks were either dispersed, or were few in number. The Conqueror in that same year bestowed the office of abbot on one of his Norman clergy, Serlo, of Mont St. Michel, who was a Benedictine monk, and a friend of other Normans who came into prominence in England. The Abbey, as it was, William of Malmesbury called a poverty-stricken gift when it came into the hands of Serlo. The new Abbot was, at all events, fortunate in his friends. Serlo knew how to beg. Lands and possessions began to be made over to the Monastery. Various important persons were generous. The Conqueror did not forget Serlo, bestowing on him the manor of Barnwood. Domesday showed that various estates had been acquired by 1087. It was natural to suppose that Serlo would do some building, but it was agreed that the Abbot did not begin his new church until 1089, when he had already been seventeen years in office. In 1088 there was a civil commotion and, according to a charter, the city and church were destroyed.

Serlo laid the foundation of his church in 1089, and further gifts of land were made during the remainder of the reign of Rufus. The dedication took place in 1100, and many gifts were bestowed at that time. But what was dedicated? They could not believe that much more than the Choir was complete at the time. The analogy of other great churches would lead them to such a conclusion, and they had no proof of special wealth or other advantages, so far as Serlo was concerned, to make them think that Gloucester was an exception to the general rule. If the whole building was finished, a miracle had been performed by Serlo. But the establishment generally was growing. As they passed into the more peaceful reign of Henry I. there was proof of the goodwill of the new King, and the increasing patronage of Norman nobles and others. In 1101 King Henry bestowed from his demesne lands the manor of Maisemore, which the charter specially stated was given for the sustentation of the monks. The Monastery was growing, but a terrible disaster was said to have overtaken it in 1102, when a fire burnt down the church and the city. So said Florence of Worcester, but he (the Dean) ventured to think that that fire was doubtful. The fact seemed to rest entirely upon the evidence of Florence, and it might well be argued that so pathetic a circumstance as the more or less total destruction of Serlo's work in his lifetime would surely have been noticed by his great admirer, William of Malmesbury, had such a tragedy occurred. Serlo died in 1104.

Whether the fire of 1102 was historical or not, they reached in 1122 what must have been a great catastrophe. As Dr. Freeman once said in a lecture delivered in Gloucester, allusions to monastic fires were frequently very perplexing to interpret; they were so numerous, and they recorded such wholesale destruction that they had to choose between accepting them at their face value, and discounting them by the evidence of the buildings themselves. A conflagration which took place in 1122 was not only supported by the contemporary evidence of John of Worcester, but in the Peterborough Chronicle it was described with such a particularity of detail as to compel credence. But, "si monumentum requiris, circumspice." Let his hearers go into the nave of the Cathedral and mark for themselves the ocular proof of the fire in the evident traces of serious burning which the massive columns still showed where they had not been refaced. Let them also look at the western wall of the Chapter House, which bore distinct traces of fire and seemed to have belonged to a building which was older than the present room. It might well have been that "a great earthquake" stated to have been experienced "over all Somersetshire and Gloucestershire" on July 25, 1122, completed the ruin begun by the fire in the previous March.

The Dean pointed out as a matter not to be questioned that in the years which followed 1122 generous gifts were made to the Monastery and privileges were bestowed upon it, far more in number and in value than those given in the decade before the fire. That profusion of endowment fitted in very well with the needs of a time when their glorious Church and its adjacent buildings had been badly injured and required much generosity if they were to be restored and carried to a worthy completion. From the last years of Henry I. the evidence had chiefly to do with grants of land. Notwithstanding the multiplication of gifts, there was some sign of financial difficulty, and if large building operations were in progress such embarrassment received explanation. But the actual references to the fabric, so far as he (the Dean) had traced them, appeared to be very few. There was a reference to the buildings in an interesting story preserved by Giraldus Cambrensis, the context seeming to suggest that the event recorded took place shortly before 1179. Pontifical High Mass was being sung by Bishop Roger of Worcester at the high altar. Just as the consecration was being performed, a massive and lofty tower at the west end suddenly collapsed, owing to a faulty foundation. The great church was thronged with people. Consternation seized the congregation, and they with the monks present rushed out panic-stricken seeking for safety, since they thought that the entire building was on the point of falling in ruin. Providentially the large number of worshippers had massed themselves as near as they could to the Choir, in order to receive the Bishop's blessing. When the noise and the dust had cleared away it was discovered that no one was hurt, whilst the Bishop all through maintained his place and continued the Office. The fall of that western tower received confirmation from the twelfth century Abbot's Chapel now in the Deanery, where half at least of the last bay closely adjoining the former south-west tower of the church had been carried away, and, as it might be presumed, in consequence of that accident.

At present he (the Dean) had nothing more to add to the chronological survey of documentary allusions to the Norman St. Peter's Church. They were not full, and, very often, they were not explicit. They seemed to suggest that Serlo inherited a poverty-stricken Abbey, and so far as the church went he had to begin a new church. His work might have been largely injured even in his lifetime. The building, probably, went on slowly, and after 1122 Abbot Goodman had virtually to begin all over again, and the construction of the Norman work was continued as means were forthcoming during the years that followed. In conclusion, the Dean called attention to the architectural evidence, quoting Mr. John Bilson, who proposed to give the result of his special study of Gloucester to the "Journal" of the Royal Archæological Institute. Mr. Bilson believes that in 1100 when the formal dedication took place merely the eastern arm of the church was complete together with its ambulatory and chapels, the crypt beneath and part of the crossing of the transept. One theory very frequently maintained has been that Serlo used a crypt of a former church. Mr. Bilson, however, considers that to be contradicted by all the evidence. The Gloucester crypt he finds takes its place in the sequence of Norman crypts.

THE first meeting of the Council of the Institute of Scottish Architects for the present session was held at 117 George Street, Edinburgh, on the 15th inst., the president, Mr. A. N. Paterson, Glasgow, in the chair. It was intimated that the R.I.B.A. had recently disapproved of the new scale of fees for housing schemes issued by the Ministry of Health, and it was resolved to request the Scottish Board of Health to withhold issuing their scale of fees until the English scale is adjusted, as it is desirable that the scale should be uniform in both countries. Applications for membership from two Fellows, three Associates, and nine Students were considered and passed. It was resolved to apply for alliance with the R.I.B.A., the Institute thus taking the place of the various chapters as an allied society.

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Correspondence.

The National Housing Policy.

To the Editor of THE ARCHITECT.

SIR,—Now that the much admired and advertised National Housing Scheme has met its inevitable end, we may expect the accompanying protests and recriminations, and, worse still, new schemes based on political opportunism. The hopeless unsoundness of the proposition was just as obvious two years ago as now, though no one seemed to realise then that they would be personally out of pocket through it.

The Government, Councils, and Press, all, as aptly put in a letter of yesterday's "Times," were "tied to the statute," and whether they tied themselves or tied each other does not matter.

The one fact we must consider is that the housing question is more acute than ever, and that we cannot afford to treat it as an expensive political toy.

The cause of the cessation of house building is the present system of local taxation, which throws the whole burden of the rates on building.

Long before the war the falling-off in house building was becoming serious, and coincided with the steady increase of local rates, as might naturally be expected.

With present assessments and rates up to an average of over 20*s.* in the £, neither Government, Corporation, or private individual can possibly afford to build, except as a luxury, and a most expensive one at that. The Rent Restriction Act, while subsidising alike both rich and poor tenants, is no protection against the "super rents," in the form of rates, being raised continually, and is actually doing the community more harm than good.

The income of local authorities is dependent to a great extent on a normal supply of new buildings and an economic rent all round, so both town and country Councils are in the unhappy position of a snake that is living on its own tail.

They seem to have reached the vanishing point at Poplar already, and Poplar is only the first.

There will be no more building possible in this country until there has been a drastic reform in the whole system of local taxation which, apart from its effect on housing, is a scandal.

No discrimination is made—the slum dweller, the large family, and the employer who builds to improve the conditions of his employés are charged "super rent," and ability to pay is not considered.

It is idle to talk of "better conditions for the workers" while the present system is allowed to continue.—Yours, &c.,

E. G. HOLTOM, F.R.I.B.A., M.S.A.

Holt, Norfolk,
July 13, 1921.

Architects' Fees for Housing Schemes.

To the Editor of THE ARCHITECT.

SIR,—Architects sometimes complain that architectural bodies and Government Departments move too slowly, but in view of the situation which has arisen with regard to housing, architects appear this time to have a grievance against the Ministry of Health because that Department has moved too quickly in issuing certain Housing Memoranda without waiting for their ratification by the architectural bodies concerned.

As the whole housing question is now in the melting-pot, is not the present a good opportunity to commence *de novo*, and, in the light of experience of the last few years, to amend Clause 9 of the Scale of Professional Charges relating to housing so as to meet existing conditions, and to call upon the Ministry of Health to honour its undertaking contained in the following paragraph of General Housing Memoranda, No. 31, of September 1919:—

"The condition of engagement of architects and surveyors shall be those which are customary in their respective professions, for example generally, such as the conditions prescribed by the R.I.B.A. and the Society of Architects in the case of the engagement of architects."

The Scale of Professional Charges includes conditions of engagement and the scale customary in the profession, and covers every point likely to arise in connection with the professional work entrusted to architects, including housing, and if an agreement could be come to with the Ministry of Health on the lines above suggested it would, in my opinion, put an end to difficulties arising (*a*) from architects undertaking housing work for Local Authorities under other conditions of agreement or without any agreement, and (*b*) from the difference of opinion between architects and the Ministry of Health as to the interpretation of General Housing Memoranda Nos. 4, 31 and 52, on which questions now arise, and the relation and application of the Scale of Professional Charges and conditions of engagement to the General Housing Memoranda.

Yours, &c.,

C. MCARTHUR BUTLER, *Secretary.*

Society of Architects,
28 Bedford Square, W.C. 1.
July 11, 1921.

The Bankrupt Boroughs of London.

To the Editor of THE ARCHITECT.

SIR,—In your issue of July 1, under "Notes and Comments," you refer to the Poplar Borough Council, and express the fear that other boroughs, such as Islington, are in a bad way.

You may be interested in perusing the enclosed statements. You may also like to know that Islington and other boroughs are most desirous of avoiding such a state of affairs as you indicate exists in Poplar. But why does it exist in Poplar? Poplar cannot help having a low rateable value and it cannot help having a high rate, because of the economic and social conditions, but if all the borough councils in London would take the Islington view, which is that the rates should be equalised, justice would be meted out to the rich boroughs as well as to the poor ones. Recently a suggestion was made that the financial resources of the London boroughs should be pooled. The Islington Council replied that the only satisfactory pooling arrangement would be the equalisation of rates.

You refer to a borough council coming to grief in the management of its affairs, and suggest that the best remedy would be to place the councils under the direct jurisdiction of the London County Council, and add that in all matters the cost of administration would probably be lessened. I do not know what justification you have for this opinion. It must be quite theoretical, and independent of any analysis of the expenditure of the London County Council on the administration already entrusted to it.

If you would like to see the Islington Town Hall I shall be happy to keep any appointment here on hearing from you.

Before you come I should like you to read the reports on the building from three architects and the borough engineer, and also the brochure which I enclose.

Yours, &c.,

ERNEST H. KING, *Mayor.*

Mayor's Parlour,
Town Hall,
Islington, N.
July 13, 1921.

[We have read the documents alluded to, which chiefly deal with the history of the controversy and include statements as to the produce of the rates and the incidence of the proposed expenditure on the population of the borough. To these is added the reports received from various architects as to the state of the existing buildings. We intend dealing with the whole subject in our issue of next week.—ED.]

Forthcoming Events.

Friday, July 22.—Concrete Institute.—Visit to Westminster Hall to inspect the reinforcement of the roof trusses. 3.30 P.M.

Tuesday, July 26.—Society for the Promotion of Roman Studies.—Annual General Meeting in the Apartments of the Society of Antiquaries, Burlington House, Piccadilly, W. 4.30 P.M.

Saturday, July 30.—St. Paul's Ecclesiological Society.—Visit to St. Pancras Old Church in Pancras Road. 3 P.M.

AN exhibition of drawings by students of the Leeds School of Architecture, of which Mr. Joseph Addison, A.R.I.B.A., is head, was held last week at the Leeds City Art Gallery. Amongst the works exhibited were drawings by H. Wilshire and G. W. Alderson, who were awarded Senior Art Scholarships in Architecture of the value of £50 a year for two years. The external examiner appointed by the R.I.B.A. was Mr. H. M. Fletcher.

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Royal Institute of British Architects.

Under the provision of By-law 51 the Council have made the following additional appointments to the Standing Committees:—

Art Standing Committee.—W. J. Tapper, F.R.I.B.A.; Alfred Cox, F.R.I.B.A.; W. A. Forsyth, F.R.I.B.A.; F. R. Hiorns, F.R.I.B.A.; J. D. Coleridge, F.R.I.B.A.

Literature Standing Committee.—H. M. Fletcher, F.R.I.B.A.; A. H. Moberley, F.R.I.B.A.; S. C. Ramsey, F.R.I.B.A.; H. Austen Hall, F.R.I.B.A.; C. E. Sayer, A.R.I.B.A.

Practice Standing Committee. — Ivor Jones, F.R.I.B.A.; Francis Jones, F.R.I.B.A.; Rupert Savage, F.R.I.B.A.; T. R. Milburn, F.R.I.B.A.; A. O. Collard, F.R.I.B.A.

Science Standing Committee. — J. E. Franck, F.R.I.B.A.; H. A. Saul, F.R.I.B.A.;; T. F. H. White, A.R.I.B.A.; Herbert Shepherd, F.R.I.B.A.; E. Fiander Etchells, Hon. Associate R.I.B.A.

The following are notes from the Minutes of the Council meeting on July 4:—

Architects and the Office of Works.—The Council approved the resolution of the Liverpool Conference on the subject of the Office of Works, and referred it to the Office of Works Committee.

The Associates' Committee.—The Council granted financial assistance to the Associates' Committee to enable them to consult provincial opinion on the proposals for Unification and Registration.

Provincial Representatives on the Practice Committee.—The Council acted on a suggestion from the Conference of Representatives of Allied Societies to appoint provincial members to serve on the Practice Committee and represent important areas in the United Kingdom.

Illegal Use of R.I.B.A. Affix.—Three cases were reported to the Council in which architects who were not members of the Royal Institute had made use of the R.I.B.A. affix.

The General Council for the National Registration of Plumbers.—Mr. H. D. Searles-Wood, Vice-President, was appointed to represent the R.I.B.A on the General Council for the National Registration of Plumbers.

The International Union against Tuberculosis.—Mr. E. T. Hall (F) and Mr. W. A. Pite (F) were appointed to represent the R.I.B.A. at the International Conference of the International Union against Tuberculosis in London, July 26-28.

University of London, University College.

SCHOOL OF ARCHITECTURE.

List of Awards for the Session 1920-21.

Lever Prize in Architecture.—A. R. Dent.

Donaldson Silver Medal.—A. G. Macdonald.

Herbert Batsford Prize.—J. B. Cooper.

Andrew Taylor Prizes.—(Third Year), S. Hyde; (Second Year), F. Jenkins.

Ronald Jones Prizes.—Second-Year History:

Mediæval.—C. P. J. Fahy.

Renaissance.—F. Jenkins.

The College Certificate in Architecture recognised by the Royal Institute of British Architects as exempting from the Intermediate Examination has been awarded to the following:—

Gwendolen M. Adshead, H. G. Blizzard, G. T. Brown, R. J. Bunce, W. C. Childs, V. G. Cogswell, G. A. Crockett, E. E. Edmunds, C. P. J. Fahy, G. H. Fielder, M. C. Glover, F. Jenkins, I. L. Kelf, E. Kirby, A. L. Knott, O. W. M. Law, H. Lewin, Breta G. Merrylees, R. J. H. Minty, S. L. Palmer, P. N. Patker, L. F. Shroff, J. R. M. Simpson, L. L. T. Sloot, E. R. Taylor, Katharine M. Wallis, O. M. Welsh, T. J. R. Winn, F. T. Winter.

"The Architect" Fifty Years Ago.

July 22, 1871.

Competitions.—Birmingham and Leicester.

Mr. Waterhouse, exactly three months ago, examined the Birmingham designs. They were about thirty in number, and no doubt cost their unhappy authors in all about two thousand pounds in money out of pocket for draughtsmen's work, besides a still larger estimated expense in personal labour. The premiums were three—£200, £100, and £50; the balance of £1,650 in cash, plus all the enormous trouble of composing thirty completed designs, being obviously absolute waste, incurred in reliance upon the honour of the Birmingham Town Council. Well, Mr. Waterhouse selected five designs which we shall call A, B, C, D, and E, and placed them in this order of merit. The first in order "the Chairman turned away from" at once, upon an excuse which the author of the design was not even permitted, far less invited, to meet. Mr. Waterhouse then was driven to take the exceptional course of placing a sixth design, which we shall call F, in the position of A, as being superior to B, C, D, and E; and this order the Committee accepted. But not so the Council at large. A bold and worthy alderman pronounced F to be "the worst in the series," and B to be "the best, and *as near perfect as possible.*" So Mr. Waterhouse's decision was again set aside, and municipal votes settled the matter. The premiums were awarded by a majority to B, C, and D. It was then moved and seconded with all gravity, and with all gravity and guilelessness put to the vote and carried, "that the sealed envelopes be opened by the Town Clerk;" when, to the utter amazement of every person present, B proved to be the work of a Birmingham man, and C the work of another Birmingham man. So much for Birmingham!

At Leicester Mr. Street went to work a month ago and selected five designs, which we shall again call A, B, C, D, and E. It was stipulated in this case, as in that of Birmingham, that the Town Clerk should retain the prerogative of ultimate selection; but the order of merit was suggested by Mr. Street as part of his report. As before, municipal votes were voted; and, as before, the result came out very much according to rule. The design A was wholly rejected; B and D ran each other very hard; D took eventually the first place, B the second, and E the third; and on opening the sealed envelopes, the breathless innocents of the Council discovered the fact that D was the work of one Leicester man, B that of another, and E that of a gentleman not far off!

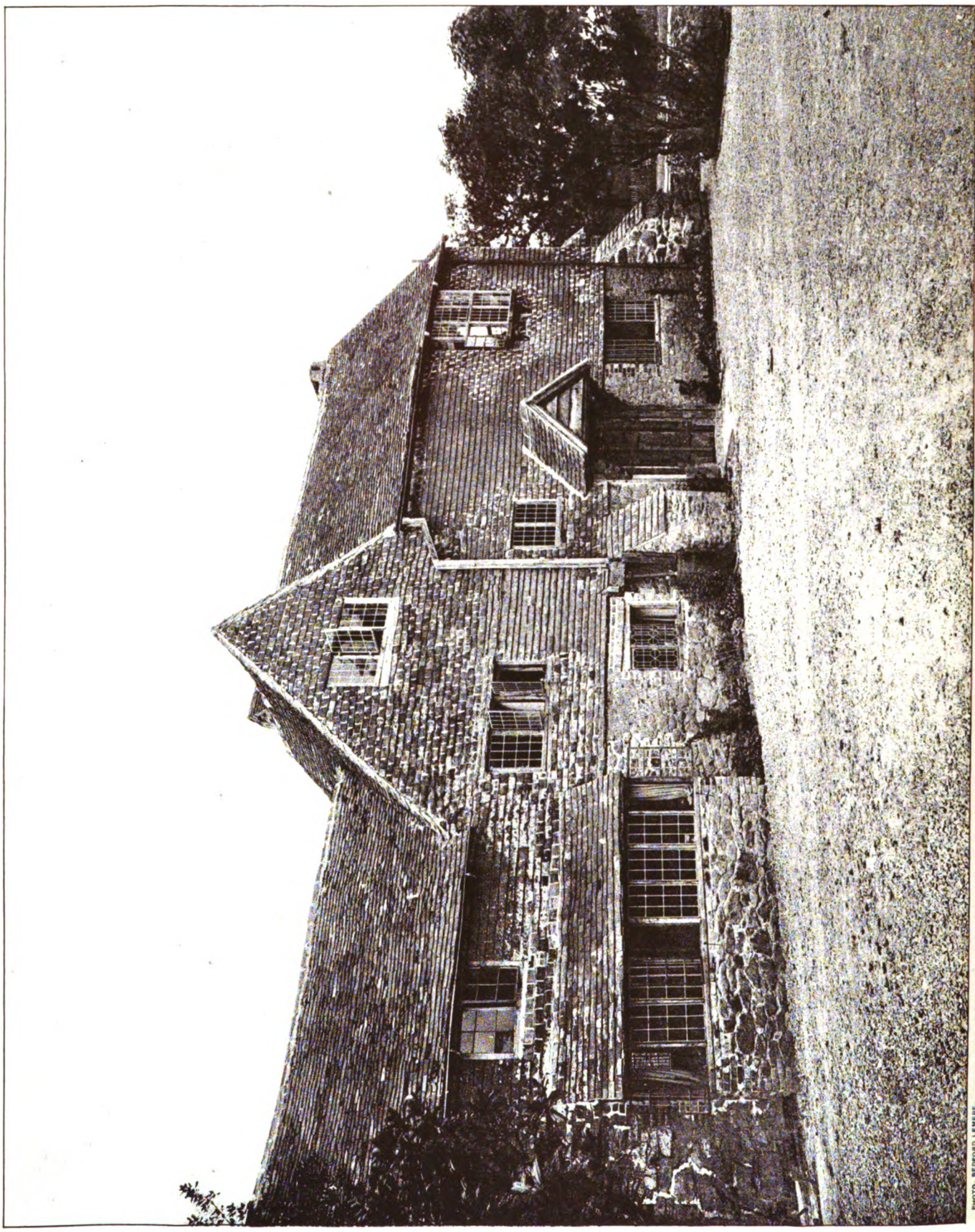
We insinuate absolutely nothing; the time has gone by for such a weak thing as insinuation in respect of competitions; the winning of them, as was carefully shown by a recent writer in this journal (most erroneously supposed to be in joke), has become matter of exact science; but there are two or three points in the Birmingham and Leicester cases which seem worthy of note. Firstly, the success of local men as regards the professional award is due to their superior knowledge of the problem (strangers being kept very much in the dark), and to the especial efforts induced by the exigencies of their local position. Then why not employ a local man at once? Secondly, the secret of authorship, as regards the municipal vote, if it was kept at Birmingham and Leicester, certainly is not generally kept. Why then such professions of impartial virtue, and such reluctance to "take the responsibility of making a selection?" Thirdly, professional adjudication, as matter of fact, does not prove successful in satisfying the defeated competitors. Why rely upon it? Fourthly, whether it be sooner or later, whether indeed it be before the selection or after, that which began as a contest of artistic designs for pre-eminence ends as a struggle of tradesmen for work. Fit result for the principle of taking all that can be got from reckless competition, regardless of the question of cost to the foolish competitors!

The Oxford University Extension delegacy has arranged a full programme for its twentieth summer meeting, to be held at Oxford from July 28 to August 17. The main subject of study will be "The place of ancient Rome in the history of civilisation." The opening lecture will be given by Sir Rennell Rodd, lately British Ambassador at Rome.

The London County Council is recommended by its Building Acts Committee to increase, as from October 1, the fees payable to the district surveyors under the London Buildings Acts by 25 per cent. This is in addition to the 25 per cent. increase provided for in the Council's General Powers Bill.

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THE OLD DAIRY FARM, EDENBRIDGE, KENT.
THE LATE MAURICE POCOCK, ARCHITECT

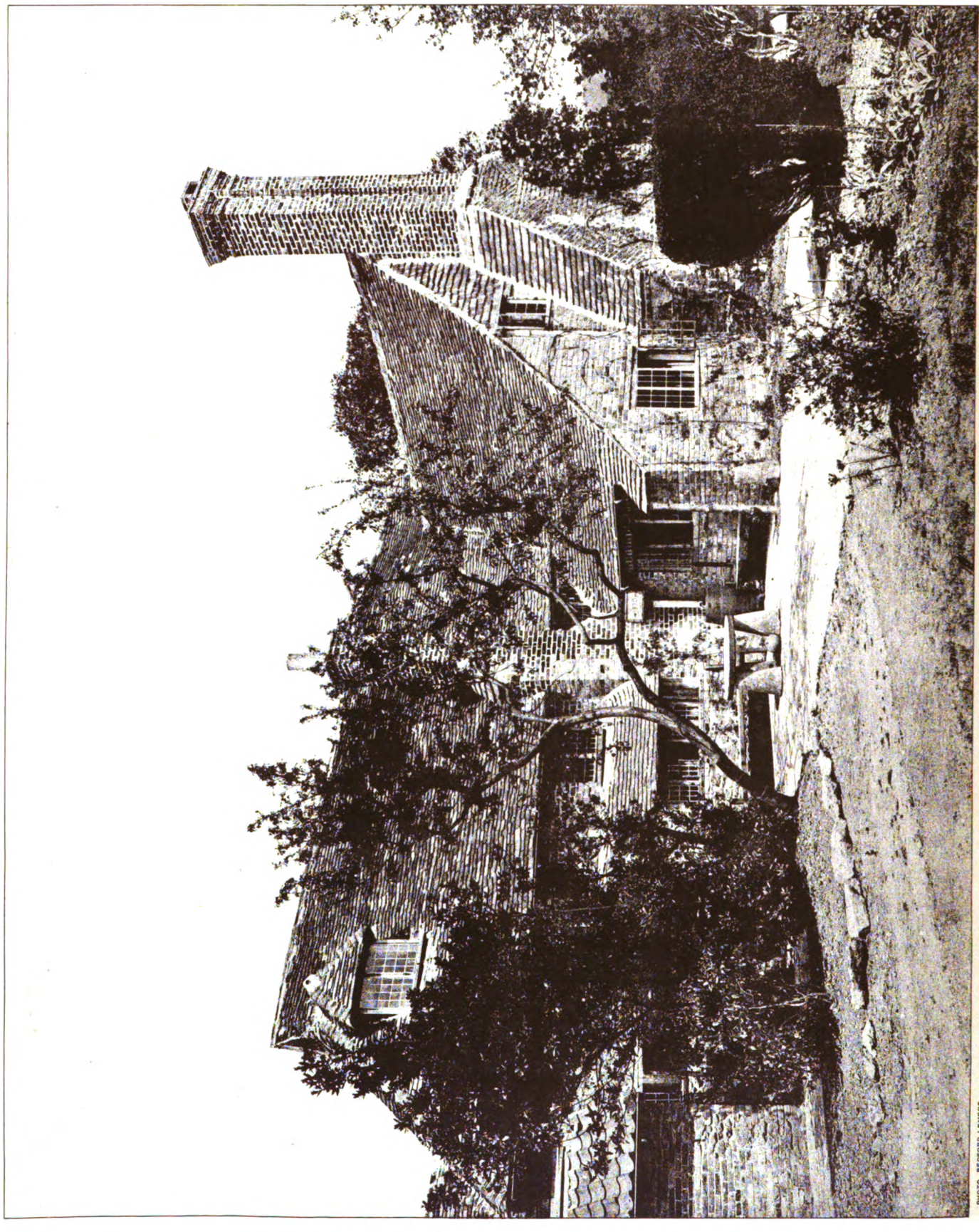
THE ENTRANCE FRONT.

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VIEW FROM GARDEN.

THE OLD DAIRY FARM, EDENBRIDGE, KENT.

THE LATE MAURICE HAYCOCK, ARCHITECT.

PHOTO, BEDFORD LEMERE.

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THE HALL.

THE OLD DAIRY FARM, EDENBRIDGE, KENT.

THE LATE MAURICE POCOCK, ARCHITECT.

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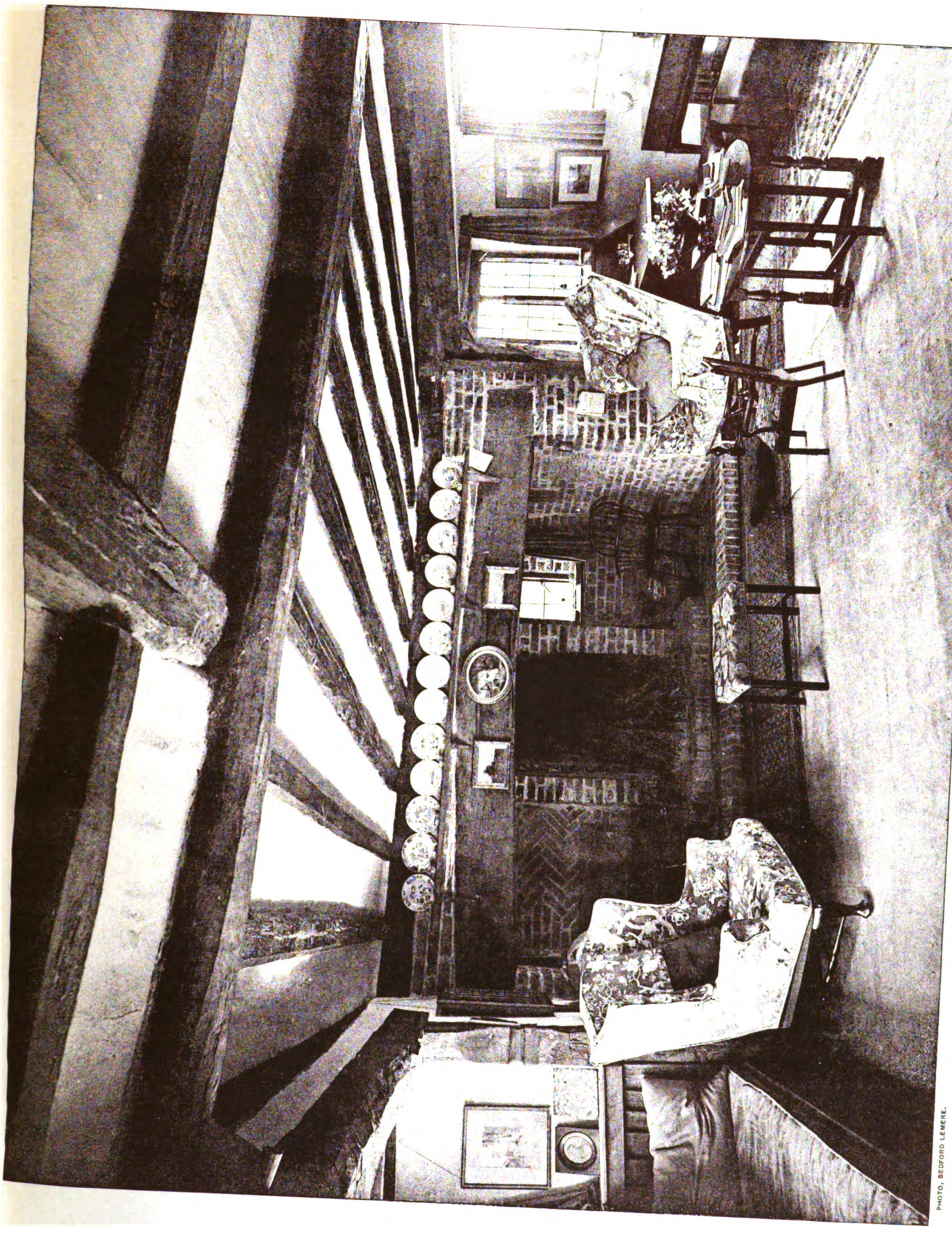
THE HALL

THE OLD DAIRY FARM, EDENBRIDGE, KENT.

THE LATE MAURICE POCOCK, ARCHITECT.

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THE DRAWING ROOM.

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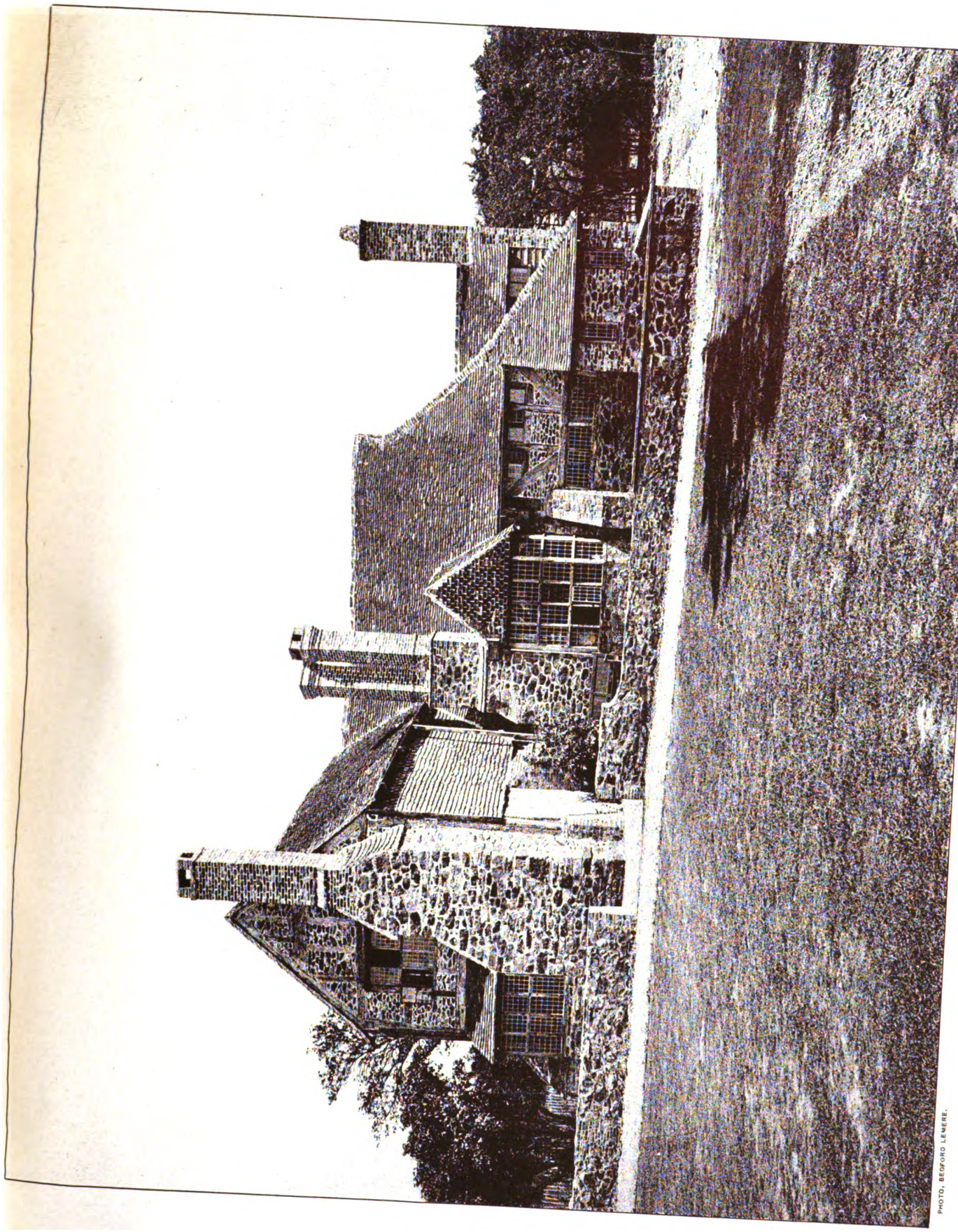
THE OLD DAIRY FARM, EDENBRIDGE, KENT.

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VIEW FROM ROAD.

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THE OLD DAIRY FARM, EDENBRIDGE, KENT.

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The London County Council.

HOUSING BONDS.

WITH the approval of the Ministry of Health, the London County Council this week decided that after July 30 they would accept no further applications for Housing Bonds. The total amount raised by the Council to date is approximately £3,900,000. Information furnished by the Ministry of Health shows that the money in hand is sufficient to meet all the present commitments of the Metropolitan Borough Council in regard to assisted housing schemes.

RENT RESTRICTION ACT.

Mr. P. A. Howis asked the Chairman of the Housing Committee whether it was proposed to take advantage of the Rent Restriction Act to raise still further the rents of the Council's pre-war houses, and whether, in view of unemployment and distress in poorer districts, he would recommend a postponement of further increase until trade conditions become more normal?

Colonel Freemantle, M.P., (Chairman of the Committee) replied that the Council's earlier decision to increase rents by the full amounts allowed under the Act had been acted upon. The question of postponing further increase would be considered by the Housing Committee at its next meeting.

RECONSTRUCTION OF LAMBETH BRIDGE.

Replying to Mr. J. D. Gilbert, M.P., who enquired whether it was proposed to apply to Parliament for powers to rebuild Lambeth Bridge, Mr. Meinertshagen, (Vice-Chairman of the Improvements Committee), said that in the present financial conditions of the country, it was unlikely that the matter would even be considered in the near future.

CANCELLATION OF HOUSING CONTRACTS.

The inevitable effect of the Government's housing policy was revealed in a report by the Housing Committee of the Council, in which it was recommended that the original scheme for erecting 1,182 houses on the Roehampton Estate be curtailed by cancellation of the contracts for 558 houses. The Committee proposed to compensate the contractors by payment of £40 in respect of each house so cancelled. Limitation of the contracts for road construction and main drainage, on terms to be settled later, was also proposed.

What promises to be an acrimonious debate was initiated by Miss Lawrence, who moved the reference back of the Committee's recommendations. The original contract, said Miss Lawrence, was made on terms highly disadvantageous to the Council, the form of tender being unusual and, as it had turned out, prejudicial to the Council. It would probably be possible to-day to get the houses built for £50,000 less than the contract price. Payment of the £40 per house was a dead loss to the Council. The course now recommended by the Committee was only the first instalment of what would happen later in connection with other housing schemes to which the Council was committed. On the Becontree Estate the Council had contracted on the basis of 20,000 houses, and the contractor had installed plant, light railways and even a cement factory on the site. So far as could be judged, probably only 6,000 or 7,000 houses would be erected of the total of approximately 29,000, which the Council originally considered necessary. Apart from the loss of actual money, the waste of labour, energy and interest of the officials and publicly-elected representatives who had devoted themselves to these schemes was appalling.

Dr. Guest, in seconding the reference back, expressed surprise that no alternative suggestion had been made to compel the Government to foot the bill. The situation was truly tragic.

At this stage, the debate was adjourned till the next meeting of the Council.

Wages in the Building Industry.

THE National Wages and Conditions Council for the Building Industry has further considered the reference to it of the notices pending for alterations of wages and conditions, and has come to the following further decision respecting the difference between the rates of craftsmen's and labourers' wages:—

"That where the craftsmen's rate on May 1, 1921, was over 2*s*. 2*d*. per hour, the difference between the craftsmen's and labourers' rate on August 1 shall be 4*d*. per hour, and on September 1 5*d*. per hour.

"Where the rate was over 1*s*. 11½*d*. to 2*s*. 2*d*. the difference on August 1 shall be 4*d*. and on September 1 4½*d*. per hour.

"Where the rate was 1*s*. 10*d*. to 1*s*. 11½*d*. inclusive the difference shall be 4*d*.

"The sliding scale to operate from this basis, provided always that the rate paid to labourers shall not be less than 75 per cent. of the craftsmen's rate.

"And provided further that should the operation of the foregoing provisions create in any district an increase in wages the present labourers' rate shall be maintained until the difference shall be effected under the operation of the sliding scale."

A. G. WHITE and R. COPPOCK, Joint Secretaries.

Painting by Motor-driven Sprayers.

THE wonderful development of the use of machinery for almost every building operation was significantly indicated at the Builders' Exhibition this year. One striking improvement is that of the motor-driven spraying machine.

The Mayfair Window Cleaning and Decorating Co., Ltd., and other firms are exploiting this means of painting with singular success.

This comparatively new device came into general use during the war, when there was a scarcity of labour. Already the spraying method has widened the field of painting and developed new markets of great value to the industry. Experience proves that paint applied by the spray gives a heavier coating, and is not marred by streaks or brush marks, but the chief advantage is the matter of speed.

These machines have a considerable vogue in America for use where large areas are to be painted, and from tests that have been carried out it has been found that spraying requires approximately 10 per cent. more paint than brushing when the surface being treated is an iron roof, while brushing requires approximately 200 per cent. more labour than spraying. On exterior brick walls spraying requires 7 per cent. more paint than brushing, while brushing requires 109 per cent. more labour than spraying. On interior ceilings and walls of plaster spraying requires 40 per cent. more paint than brushing, but gives a better hiding in one coat. On similar work brushing requires 160 per cent. more labour than spraying, and gives a poorer hiding in one coat. Although it has not been possible as yet to arrive at a definite conclusion confirming the relative durability of spraying as compared with hand-painting, it is claimed that the investigations so far made tend to support the belief that the spraying work will last longer.

Paint is undoubtedly the greatest preservative agent known. Its judicious use entails a precautionary expense that returns a remarkably high rate of interest. There is no practice in the art of saving that excels the plan of preserving the property we possess.

The spraying system is moreover an especially valuable innovation in the case of whitewashing factories, where time is the essence of everything.

The Mayfair Window Cleaning and Decorating Co., Ltd. (9-10 Grantham Place, Park Lane, W. 1), are making contracts for annual and bi-annual painting of house-fronts, as it is found that the cost of having a perpetually clean building is less than was the case of having the exterior painted once every six or seven years.

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Land Subsidence and Foundation Design.

At the last meeting of the Concrete Institute a paper entitled "Land Subsidence and its Effect on Concrete and Other Structures" was read by Mr. Lawson S. White, A.M.C.I., A.M.Inst.C.E. The author confined himself to the examination of failures attributable to earth movement or weakness of supporting soils. From the paper we give the following extracts:

Earthquakes.—The subsidence due to earthquakes is beyond the scope of this paper, but it is worthy of note that in countries (such as Italy) which are subject to volcanic action, an increasing effort is being made to construct anti-seismic buildings, for which, for obvious reasons, reinforced concrete is an ideal material. In one instance, after an earthquake in an Italian village, a reinforced-concrete structure was the only building left standing there.

Coast Erosion.—The sea is one of the most troublesome and relentless of destructive agents, and examples of its effects are only too frequent. By constant storm and wave action the coast is worn away and undermined, or by water penetration to clay strata a greasy surface may be formed on which the mass above can slide forward and downward to the sea. Protective measures against wave action, such as groynes and seawalls, are a partial and in many cases almost a complete cure.

Local Erosion.—River erosion, either by an alteration in the direction of flow or by a scouring of the channel, is chiefly to be expected in countries subject to torrential downpours. Exceptional floods may open up a new course or undermine and destroy existing structures. In regions thus affected a practical method of strengthening soft banks is to plant deep-rooted vegetation in the slope. Where a river wall is liable to be undermined by a deepening of the river bed, a flexible mat, consisting of large concrete blocks threaded on wire cable, has effectively prevented scour.

It often happens in gravel soils that a stream flows beneath the surface. Near a river, where a heavy building is founded on an alluvial deposit which covers the ballast bed, the soil may be forced down to a level at which it becomes affected by the erosive action of the flowing water. In such cases it is advisable to take the foundation down to ballast.

Careless construction of drains and water mains is a frequent cause of destruction of property in towns. A leakage generally grows, and may ultimately wash away the earth in its passage, and thus often causes an ugly settlement where it has access to the foundation bed of a building. These leakages may sometimes be due to a break caused by a slight natural subsidence or a swelling of clay soils in the wet. During the excavations for the Paris subways a large sewer was broken into, and the flow through the workings caused the total collapse of a large street area.

Many of the buildings in Venice are founded on an impermeable stratum of clay and sand about six to eight feet thick and about 9 feet below sea-level. To compress the soil for the Campanile foundation bed, short piles about 4 feet long were used, and some penetrated to the pervious sand, with the result that a flow of water was caused and the workings had temporarily to be abandoned.

A particularly interesting case of local erosion occurred while water, which had penetrated the felt waterproofing, was being pumped out of the basement of the Taft Hotel, Conn., U.S.A. The fault was not immediately repaired, with the result that sand was constantly being washed from under the footing of a steel column. This suddenly subsided 2 feet, leaving the stanchion suspended, and supported only by the connection of two 20-inch girders which thereby formed one continuous girder of 32-foot span, instead of two of 16 feet.

Subterranean Workings.—In mining districts where careless methods have been employed, subsidence of large areas of land with consequent destruction of property is only to be expected. The remedy lies in careful back-filling after mining or in the provision of adequate permanent supports. An irrecoverable waste of valuable fuel is caused by leaving 30 per cent. of the coal seams in pillars to support the roof.

Chalk as a foundation bed should be well tested, since it is liable to undergo dissolution, leading to the formation of cavities or "pipes" which may cave in under pressure.

Organic Interruption.—Buildings founded on timber grillages often subside because of the decay of the timber. If the water level changes constantly, and the foundation is subject to alternate wet and dry periods, this decay is rapid; but timber may last well in earth always saturated with water. Top soil must be avoided as a foundation for buildings and, if feasible, for embankments, since it is honeycombed with worm holes and root channels, and it should always be stripped to a sound depth. The subsidence of earth-fills is often due to neglect of stripping. Water usually penetrates to the depression caused by initial subsidence, and so lubricates a surface on which an extensive slide of the embankment may occur.

An unusual instance of failure, due to the crushing of top soil, was that of a reinforced concrete aqueduct at Winnipeg, which, for gradient purposes, had to be placed at ground level. The settlement caused large cracks in the invert. These were remedied by a wedge-shaped cement filling.

Chemical Action.—Vegetable soils, such as peat, gradually decompose and lose volume. Allowance should be made for this shrinkage. Water in alkaline soils attacks and rots concrete. One of many typical instances is that of the Winnipeg drainage system, where about forty miles of concrete sewers were said to be in a state of collapse, the concrete having rotted away to such an extent that it could be picked away by hand. Knowledge of this chemical action is too recent to have suggested a suitable remedy—apart from waterproofing.

Natural Shrinkage of Ground.—Where large tracts of marshy ground, with thick peaty top soil, are drained, a considerable subsidence takes place. This is due to three main causes—drying, decay, and cultivation. Parts of the Fenland sank through 10 feet between 1848-1913.

Since a country of this type is usually very flat and almost waterlogged, the drainage system must be very carefully thought out, and provision made for maximum shrinkage. As the water table is lowered so the grades change, and unless this is allowed for a pumping plant or drainage system may be rendered useless. Buildings on slowly subsiding soils usually settle equally and without damage, but the decay of timber pile foundations subsequent to the lowering of the water level is a frequent cause of failure.

Shrinkage of Earthworks.—It is a moot point with engineers whether or not earth taken from a cutting shrinks when made into an embankment. From exhaustive investigation of actual works it would appear that in calculating excavation quantities an allowance should be made. It would be difficult to compact earth more closely than Nature does, and the density of the soil increases with its depth. Top soils, however, contain a considerable percentage of voids caused by frost or organic action; and since most embankments are built of soil of this nature, taken from shallow excavations, it is only to be expected that, quite apart from apparent shrinkage of volume due to subsidence of foundation bed and loss of volume due to transportation from cut to fill, or else due to rain erosion, a decrease in volume will result from handling and deposition and subsequent pressure in the fill. Made-up ground takes time to settle finally, in spite of most careful watering and rolling in deposition. "Hydraulicking," a modern method of building large fills by pumping the material into place with water, resembles more closely the natural method of formation and produces best results. Unless it is thoroughly investigated and tested, "made-up" ground should be avoided as a foundation bed for heavy buildings.

Weather Effects.—In countries which experience severe cold the soil is sometimes frozen to a depth of from 4 feet to 6 feet, and consequently its cohesion is impaired and its bearing-power becomes uncertain. Every building

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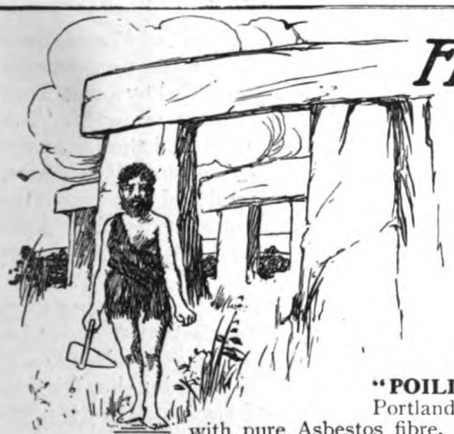
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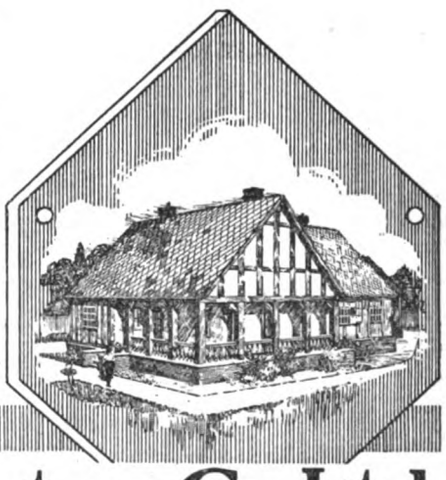
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foundation should be placed below the frost-line, to avoid failure either by upheaval through expansion by frost or by subsidence on account of the weakness of frost-loosened soil. On works such as new roads, where very shallow foundations only are practicable, great care must be taken over the drainage of the subgrade. There are instances without number in which a waterlogged subsoil has frozen and caused wholesale bursting up of miles of new roadways. Clay soils are very sensitive to weather changes, since they swell considerably when wet and contract when dry. This generally accounts for the all too frequent sight of cracked or leaning garden walls and gate piers. To avoid frost and weather action it is advisable to lay foundations, according to local conditions, at from 5 feet to 8 feet below the surface.

Alteration of Water-level.—Water, when present in soils at a more or less constant level, often accounts for a certain amount of the bearing capacity, since it keeps the earth in a swollen condition. A change of bearing capacity is therefore to be expected when the level of the water table is altered. The change occurs usually on account of a fall of level, in which case a natural subsidence follows the shrinkage.

The lowering of the water-level may be brought about in many ways, as, for example, by artificial drainage, by drawing from wells or by pumping, by natural drainage, or drainage to near-by excavations or to deep railway cuts or tunnels in the neighbourhood.

When pumping operations are extensive and prolonged and a flow of water is drawn from adjacent sources, fine particles of soil are often carried away by the current. This continual robbing of the subsoil must eventually cause a subsidence of the overlying ground.

The eradication of the evil of wet basements by subsoil drainage often introduces the greater evil of foundation failure. During the construction of New York subways a subsidence of works directly attributable to pumping operations led to the rupture of the waterproofing courses, and made consequent flooding difficult to combat.

When the Assouan dam was built and the country in the vicinity of the Philæ Temples was flooded, foundations of the temples which did not previously reach to saturation level had to be carried down in order to meet the new conditions contingent upon the raising of the water-level.

Sliding.—The resistance to movement created by friction of soils on soils or structures on soils is the fundamental cause of their stability. Many failures of embankments, retaining walls, dock walls, &c., are attributable either to a subsequent loss of frictional resistance or to the exceeding of the resistance value in design. Water is the chief enemy, and, unfortunately, it is almost impossible in many cases to avoid its penetration to foundation beds. Deep porous sandy soils drain themselves freely, but clay soon becomes saturated, loses cohesion and frictional resistance, and offers little resistance to the lateral thrust of superimposed soils or structures. Good drainage is therefore essential where possible. In cases where it is not possible to avoid water penetration foundations must be taken down far enough to ensure their stability under the worst conditions, and lateral thrusts should be relieved or balanced to reduce their effects to a minimum.

Landslides.—Excavations for new buildings in districts already built upon are a constant source of danger and trouble on account of the little attention paid to earth pressures, and even when shoring is placed to counter the thrust of the earth behind, it is often inadequate or removed too soon. A slight settlement may break a sewer or water main and thus develop into a much more extensive slide.

At first sight there appear to be many varieties of landslides, but on investigation we find they are mainly attributable to the same cause, namely, water action. A recent slide at Pittsburgh, which almost managed to cut in two an important traffic thoroughfare and a great American railway system was due to water penetrating to an inclined bearing surface of clayey shale, which soon became sodden and provided a good sliding plane for a great mass of natural soil and filled-in material. A well-directed attack at the toe of the advancing slide by a concentration of nine steam shovels saved the situation.

In addition to lubricating a surface, water will transmit the pressure due to its head on the underside and at the back of the slide and so force it forward. The avoidance or elimination of trouble seems to be achieved by a thorough investigation of the geology of a district before construction is begun and by drainage where necessary.

Unequal or Excess Loading on Weak Soil.—So far, failures due to unforeseen or unexpected natural conditions have principally been considered. More often, however, the human element is at fault, and this is not to be wondered at when so little definite information is available for the use of designers. For buildings on ground of low-bearing value spread footings or raft foundations are often used, in which case care must be taken to distribute the load equally, so that subsidence, if any, will take place uniformly. An unequal settlement will throw the centre of gravity of a building further towards the overloaded side, and thus cause still greater movement, which, to a structure of considerable height, might prove fatal.

Reinforcement of the "raft" is a steadily growing practice and has proved successful in many cases. The steel may be placed either in the body of the mattress, as slab reinforcement, or more efficiently, between the column bases in beams or cantilevers formed in trenches of the desired dimensions cut in the foundation bed.

In calculations to determine the bearing area for buildings, the live load must not be neglected. A convenient method of calculation is to consider that footing in which the live load bears the highest proportion to dead load, and to note the area needed to support its total load at the allowable unit-bearing value. From this, neglecting now the live load, we can calculate the dead load per unit area for the footing and adopt this as the unit for the calculation of areas required for the other footings.

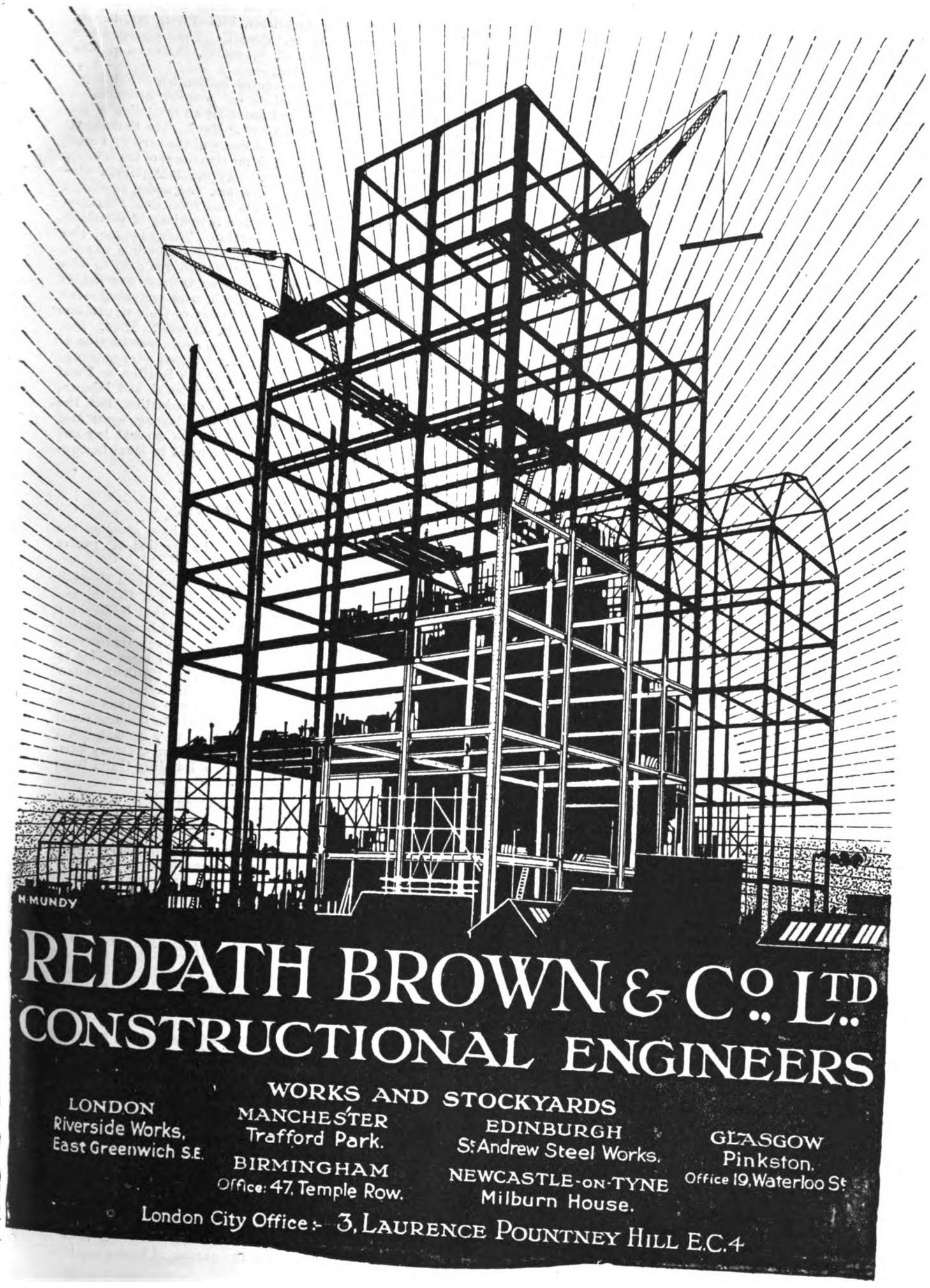
Pile foundations are often abused and sometimes placed where absolutely useless. An interesting example of slipshod contractors' methods is afforded by a New York tenement house, where a bad settlement occurred. The foundations were uncovered and tested and the piles were found to sustain ¾ ton against an estimated two tons. They had all been cut off short and did not reach the required level. Steel shell piles were then jacked down against the weight of the building and filled with concrete to form a new foundation.

A pile driven down to a material of good bearing capacity will sustain its load as a column, but when a suitable bed is too far distant a pile may be driven for a length into a weak soil, when it will transfer its load by skin friction. A certain number of piles will load an area to its maximum, and extra piles, to be of any service whatever, must be driven outside that area to create a larger zone of resistance. Although piles will bear a high vertical thrust, they are weak laterally, since they are easily forced through the soil and serious failures have occurred on account of lateral pressure, such as might be expected with a retaining wall. Piles should therefore be driven in the line of resultant pressure.

In soil of a compressible nature it is seldom that a building maintains its original foundation level, but such slight subsidence is not to be feared if it is uniform, and it is a growing practice to expect a small settlement and make allowance for it. An effort should, therefore, be made to tie a building well together, and make it act more as a unit than a collection of disjointed parts. Reinforced concrete is by nature an ideal structural material under such circumstances.

We have been requested to announce that the Architects' and Surveyors' Assistants' Professional Union have removed their offices from Sanctuary House, Tothill Street, Westminster, S.W. 1, to 36 Victoria Street, Westminster, S.W. 1, where all communications should be addressed.

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New Books.

MESSRS. JOHN TIRANTI & Co., publishers, of Maple Street, Tottenham Court Road, who have made a name for the production of useful and inexpensive reprints of standard architectural works, have brought out in a convenient pocket form a reprint of Batty Langley's "Builder's Jewel,"* the plates of which have been selected from the editions of 1746 and 1769 and reproduced from the original engravings. The whole series of plates, fifty-six in number, are printed on thin card and clipped together at the angle, so that each plate can be detached for use as desired. These little works give the necessary particulars to enable architects and others to draw the Italian orders correctly, and their constant use in the nineteenth century was the chief cause of the classical details of those days being correct and harmonious in detail. While they do not show a wide range of examples, they practically cover the whole field of design, and were used by men who were more particular about the composition of whole buildings than the search for novelty of detail in small parts of them. We are glad to hear that Messrs. Tiranti intend to continue their very useful series.

* A Pocket Edition of the "Builder's Jewel," by Batty and Thomas Langley. London: John Tiranti & Co. 4s. 6d. net.

General.

THE President of the Royal Institute of British Architects has been appointed a Vice-President of the Public Works, Roads and Transport Congress, to be held from November 17 to 25.

A NEW police-station and cottages are to be erected at Girvan for the Ayrshire County Council from the designs of Mr. A. C. Thomson, architect, Wellington Chambers, Ayr, N.B.

THE Lord Kitchener Memorial Committee has given the commission for the execution of the equestrian statue of the late Lord Kitchener, which is to be erected on the Horse Guards Parade, to Mr. John Tweed, of Chelsea.

THE R.I.B.A. Council have just purchased the Corporation leasehold of No. 10 Conduit Street, London, W. The leasehold is perpetually renewable without fine, and is therefore practically equal to a freehold.

THE Greenwich Education Committee are about to apply to the Board of Education for consent to plans for the erection, in Sprules Road, Brockley, of the first portion of a central school for 800 children, and adopted temporarily for use for two departments by 384 mixed and infant children.

THE late Mr. Thomas William Twyford, the founder of the firm of Thos. W. Twyford, afterwards chairman of Twyfords, Ltd., sanitary potters, of the Cliffe Vale Potteries, Stoke-on-Trent, left £236,745. On the death of his wife his collection of Old Staffordshire pottery goes to the Hanley Museum.

THE first annual report of the Forestry Commissioners has just been issued. The Commission are now in possession of 103,100 acres of land, of which 68,100 acres are classified as plantable. The report states that the planting programme of 1920-21 has been successfully carried out, and the total area planted by the Commission is about 8,000 acres. "There is no reason," states the report, "to suppose that the average annual demands for timber for house construction delayed repairs, and industrial developments will be less in the next decade than they were during the five years immediately preceding the war. If this is the case, and the price of timber does not fall much below a figure midway between the 1913 and 1920 prices, we shall have to pay for the whole of the period 1915-1930 anything between £400,000,000 and £600,000,000 more for our timber than we should have had to pay for a similar amount at 1909-13 prices."

THE Berks, Bucks and Oxon Architectural Association held its inaugural meeting recently at University College, Reading. Mr. E. P. Warren, F.S.A., F.R.I.B.A., the first president of the association, was in the chair, and was supported by the vice-presidents, Mr. C. Steward Smith (Reading), and Mr. Harold Rogers (Oxford). There was a good attendance of members. The president stated that although the formation of the association was only determined on three months since, the constitution had been settled, officers elected, affiliation to the Royal Institute granted by the council, branches formed in all three counties, with a membership in that short period of close on eighty. Mr. E. P. Warren then presented the prizes to the students in the competition for design recently held by the Reading Society of Architects, viz.—First, Mr. R. J. Carter; second, Mr. A. H. Powell. The members were entertained at tea by Mr. C. S. Smith, chairman of the Reading Society of Architects.

AT a recent visit of the Surveyors' Institution to Norwich, its members had two invitations for a spare afternoon—one to visit the Cathedral, and the other an invitation to go over the works of Messrs. Boulton & Paul. The Cathedral of Norwich has much charm, but many of the surveyors not unnaturally took more interest in the structures of the future than in those of bygone days. At the B.P. Works the visitors were received by the directors, and under personal guidance went in parties to see the constructions of Chaine-Helice and the Boulton pump—two inventions of peculiar interest in these days of water shortage. They saw, too, the manufacture of the latest British electric-lighting plant, "Electolite." But perhaps most attention was paid to the Boulton & Paul buildings. Particular interest was taken in the huge stocks of timber which were seasoning—for Boulton & Paul on no account use in any of their structions timber that has not been carefully seasoned. Then, too, the visitors were interested in the steel constructional department, and in the weaving of galvanised wire netting. It was observed by many of them that the Boulton & Paul method of strict supervision, both of material and labour, ensured not only economical large-scale production, but the erection of buildings which would give lasting wear and satisfaction, and tribute was paid to the general lay-out of the works, for facilitating easy progress in manufacture and delivery.

Housing News.

THE Rugeley Urban District Council have accepted the tender of Mr. Charles Mason for the erection of twelve further houses at £635 per house.

THE Housing Committee of Dunfermline Town Council, after a consultation with the Scottish Board of Health, has decided to give all the contractors who lodged tenders for brick, joiner and plaster work at Brucefield housing scheme an opportunity to re-tender:—(*a*) On the ordinary contract basis; (*b*) alternatively on Building Guild basis. This is the outcome of a peculiar situation. When the Dunfermline Building Guild lodged their tenders, which were the lowest, the members intended that these should be contracts in the ordinary form. When the head office of the Building Guild in Manchester was consulted, however, they intimated that they would not enter into the contract on an ordinary form, but could only take up the work on Building Guild terms and conditions.

THE Scottish Board of Health had up to July 9 approved tenders for the erection by local authorities and public utility societies in Scotland of 20,625 permanent houses. At June 30 1,968 of these houses were occupied, 117 were ready for occupation, and 10,357 were under construction. At the same date certificates had been issued, in respect of approval of plans, &c., for 2,203 houses to be erected by private persons under the Housing (Additional Powers) Act, 1919, and subsidy had been paid on 594 houses so erected. The estimated average cost per house during June, 1921, of the various authorised types was as follows:—three apartment flats £804, four-apartment single storey cottages £835, three-apartment double storey cottages £823, four-apartment double storey cottages £962, five-apartment double storey cottages £994.

THE Urban District Councils' Association held their annual conference last week at Paignton. At the final sitting the following resolution was carried unanimously:—"That this conference of the Urban District Councils of England and Wales, while taking note of the statement made by the Minister of Health in the House of Commons on Thursday last in regard to the completion of houses for which tenders have been approved, and the extension of time for this purpose, and while recognising the financial and economic conditions of the country, regret the decision of the Government to postpone for the present the approval of further tenders, as they cannot regard the limitation of 176,000 houses as adequate to meet the housing needs of the country, particularly in view of the statements made by responsible Ministers as to the number of houses required."

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Islington's Impasse.

WE have visited Islington and had the advantage of a discussion with its Mayor and Town Clerk, and have also been through the data supplied to us and inspected the existing buildings. We will refer very briefly to certain statements made by us which have been challenged, but on which our explanation supplies a reading which justifies us without imputing anything detrimental to the good intentions of the present Council or its advisers. Objection is raised to our mentioning Poplar and Islington in the same breath, because in the one case the local authority has refused to pay the quota demanded by the County Council and other bodies, and in the case of Islington the quarterly levy of 5*s*. 1½*d*. in the £ for the Christmas quarter of 1920 was paid, with the exception of .88 per cent., which was classed as irrecoverable. The rate levied for the year ending March 1921 was 17*s*. 3*d*. in the £. The cost of the first, and larger, scheme for a Town Hall and Municipal Offices was put down at £436,000, and the second, or smaller, scheme, which included departmental offices, at £330,000, which, if repayable in thirty years at an average rate of interest of 6 per cent., would involve an addition to the annual rates of 3*d*. in the £.

The Tyndale Place site has been offered to the Council for the new buildings at a cost of £30,000, whereas it was proposed to acquire part of the same site—10,000 ft. less in 1899 for £50,000. This is urged as a proof of the businesslike qualities of the present Council.

As to the existing buildings, we agree with the writers of the various reports submitted to the Council that they are inadequate for present requirements, that they are overcrowded, and, in many respects, unsatisfactory and defective, and that they may be considered as being unsuitable for alteration and addition.

We have condensed the facts placed before us, and have, we believe, stated them fairly, and it now remains to make our comments thereon.

The present Council are undoubtedly in the right in stating that the accommodation has been inadequate for the purposes of the Council for many years, and that, *as events have turned out*, great economy would have been effected had the problem been dealt with twenty years ago. But few among us anticipated the war, and no one imagined that it would last five years, and no one ever thought that the country would be now suffering under an appalling load of taxation and debt. Not one of us in 1914 would have anticipated a time in which building costs would reach three times what they were in 1914. Had we known these things we should have all acted differently; our problem to-day is to settle how to act under conditions of unprecedented and abnormal difficulty.

Now economy and extravagance are relative terms: a borough whose rates are 6*s*. in the £ might reasonably add 3*d*. in the £ to them for a certain advantage which a borough rated at 17*s*. 3*d*. in the £ might as reasonably consider an extravagance. It must also be considered that such increased rates are not the sole demand on the ratepayer who has to pay in Imperial taxation sums undreamed of ten years ago, and this out of resources which usually have rather decreased than increased in the interim. We do not regard the fact that a quarterly rate of 5*s*. 1½*d*. has been paid, with an irrecoverable amount of less than 1 per cent., a conclusive proof that Islington and other boroughs in like case are in a sound position, for men will pay their dues up to the time when circumstances force them to break. We say that many public authorities are very near the line which divides solvency from insolvency, and that the break may come with great suddenness. We are quite willing to admit that it is Imperial obligations such as the administration of education and the Poor Law which account for the greater part of municipal rates over which local authorities have no jurisdiction. We may here say in parenthesis that just as financial necessities have determined the reversal of the Housing policy of the Government so will the same reasons finally dispose of their new Educational policy. The gist of the whole question is how the Borough Council of Islington should act to keep their part of the rates, amounting to about one-third of the whole, as low as they reasonably can.

As to this we have a clear and definite view. We do not think the enormous cost of the New County Hall is an argument in point. This project was put in hand before the war, and the Council committed to its completion. The L.C.C. may reasonably spend £4,000,000 on their new Hall, because they have no alternative and are committed to complete the scheme. Had it not been commenced till after the war, we may assume that something cheaper and more tentative would have been carried out. Marylebone, the last of the Borough Councils to build before the war, has carried out a scheme which was good, reasonable, and proper before the war, but which the Council might have hesitated in taking up as a post-war enterprise. This brings us directly to our point. Islington might reasonably have embarked on its present scheme before the war at about one-third of the proposed cost for which its ratepayers, unburdened by present heavy taxation and war debts, would have had to pay. It would have been reasonable to entirely scrap the present buildings and to have started *de novo*; it is, we hold, bad policy to do so under present conditions. What, then, is the solution, if we have admitted the present buildings are inadequate? It is, we believe, this. Building prices are falling—how much they will fall, and how soon such fall will take place, we do not know. If, instead of spending £330,000, the Borough Council were to spend £100,000 in a simple building which would contain some of the needed

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departmental accommodation and form a part of a future building to be completed, it could clear out several of its departments from the present Town Hall, leaving ampler and better room for others there. We are sure that even now the judicious expenditure of £100,000 would give Islington what it practically wants, while the present Council Chamber and Committee Rooms could be enormously improved by the expenditure of a comparatively small sum on more efficient ventilating apparatus and by the negative advantage of freeing the building from "overcrowding." We have purposely not asked to see the plans which have been approved, though we shall be very pleased to publish them. Such publication might prove to us and to our readers that the Islington Council is right and we are wrong in what we have said; and if it does, we shall be ready to admit our mistake.

Till that is done we adhere to our opinion, in spite of what we have seen and heard: our opinion being that the proposed expenditure is unjustifiable in view of present conditions and of the finances of a borough whose rate is 17*s*. 3*d*. in the £. We have not elaborated or emphasised the further point, that the local administration of the London boroughs may be so changed in the near future as to render it inadvisable to provide for their present requirements by the erection of large and costly buildings.

We would add that we are sure, from what we have heard, that the Borough Council has acted in perfectly good faith, but we disagree on essential points with their conclusions.

Illustrations.

"MARKET, VENICE," AND "LIFE OF THE THAMES." By DONALD SHAW MACLAUGHLAN. (From the Leicester Galleries.)
WAYSIDE CROSS ON MAIN ROADS AT HILDENBOROUGH, KENT, AND VILLAGE CROSS AT STOPHAM, SUSSEX. H. P. BURKE DOWNING, F.R.I.B.A., F.S.A., Diocesan Architect.
"OCKHAMS," EDENBRIDGE, KENT, AS ALTERED AND ADDED TO. By M. H. BAILLIE SCOTT, Architect. (See Article.)

"Ockhams."

"OCKHAMS" is one of those typical old Kentish farmhouses which perhaps owes its chief charm to the fact that it hardly appears to have been consciously designed but rather to have grown out of the ground naturally and somewhat casually. Was it deliberate design or merely happy accident which led the old inhabitants of the farm to plant along the long rambling south front of the house a row of apple trees? In the spring the blossom here has the foil of the old tiled roof, and at all seasons the leaves and branches cast their intricate shadows on the white weather-boarding of the house in patterns which form an excellent substitute for architectural adornment.

On the north front the lower part of the walls are of brickwork, coloured a warm and weathered reddish ochre, and above, tile-hung partly ivy clad. An old cottage which immediately adjoins the house still preserves a record of the old hopfields in its square stone-built oast.

"Ockhams" is approached from the road by what may perhaps be described in the language of the house-agent as a park-like drive, but which more resembles a country lane overshadowed by great oaks.

And as one ascends the gradual incline to the house and the fields beyond, fifty acres of pasture in all, one may note that each field has its pond. These ponds—seven of them altogether—owe their existence to the old stone quarries on the farm. Each has its own particular character. One has steep banks covered with wild roses and brambles, and is overgrown with bullrushes—another is fringed with golden broom, and one at the upper end of the farm forms the foreground to the purple distances of the Weald. And here one may be thankful to the old builders for placing the farmhouse only halfway up the slope of the hill, where, surrounded with its orchards, it seems to lie snug and secure instead of on the highest point, where in unrelieved isolation it would seem to stare unblinkingly at the extensive prospect.

In dealing with an old house like this, to make it fulfil the material demands of modern life where so much has been rightly and beautifully done in the past, it would ill become us to mar it all with hard and mechanical modern workmanship. How few there are who understand the deeper qualities of the building art which this old house exemplifies.

Building at its best is no mere dry and pedantic intellectualism—a thing to be arrived at by passing examinations or reading textbooks. Nor is it a matter of making dwellings, as cattle stalls and stables are designed, for mere purposes of practical efficiency. We ought to think of houses as we still contrive to think of churches as temples of the gods—serving indeed their practical purposes, but owing their chief claim to our regard to the inspiration and delight they afford us in our daily lives. The whole tradition of modern building makes it difficult, and all but impossible, to achieve these nobler qualities in ordinary building which were once a common possession.

The old building was an expression of the subconscious selves of the workmen, and since in country places these workmen were in tune with their natural surroundings, the buildings they produced seemed, too, almost like natural products of the countryside, and ranked with trees and flowers as the proper ornaments of the natural world. We have spoiled all that now by training our workmen till they are little better than machines. The great open fireplace in the hall at Ockhams is a fine example of the ancient art. It makes one realise the significance of the old phrase "hearth and home," for in the modern house the hearth is no longer a hearth, or the house a home.

The main alteration to the interior is the formation of a roomy hall and the substitution of casement windows of the old pattern for Victorian glazed doorways. Further proposed developments are shown on the plans illustrated. The dairy becomes a parlour in the Georgian manner, providing a refuge for those who object to the old low-ceiled rooms.

The house is linked up to the cottage with an extension of the kitchen premises and an archway formed for access to the farm beyond.

The bathroom, with its proper supplies of hot and cold water, is added, and all those very desirable conveniences which represent the modern contribution to the art of house building. And so we gain that conjunction of old-world beauty with new-world utility which represents perhaps the best solution of the housing problem for those who appreciate both. And since we are most of us somewhat in a hurry in these days, and not often altruistic enough to work for the benefit of future generations, much is gained by the possession of the solid framework of a garden—the old orchards and trees which seem so slow a-growing.

In one thing "Ockhams" is specially blest. Although within an hour by rail of London and two miles from a station, it is absolutely remote from that suburban atmosphere which envelops less fortunate localities. The primroses and bluebells in its woods are real country primroses and bluebells. The cocks and hens walk freely abroad without offence to the genius loci. It is difficult to say what it is and how it is that certain places derive their qualities, but certain it is that the gradual exodus to the south from London, and the building of ornate and expensive villas has led to the gradual destruction of most of the distinctive charm of the country. Here and there a house-agent will acclaim an unspoiled place, meaning thereby that there are no modern buildings of the usual kind. Ockhams is one of these unspoilt places, and long may it remain so.

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London Art Galleries.

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Various causes—among which the coal strike, which hit business very hard on every side, and the present extraordinary spell of heat may be mentioned—have contributed to make the present season short-lived; and, in fact, the London exhibitions are already moribund, or are arranging their permanent summer shows for the quiet time coming.

Messrs. Walker, who have done very well over the exhibition of Carlandi water-colours of the Roman Campagna, which has been duly noticed in these columns, and of which some forty out of sixty-one pictures exhibited have been sold, are keeping for these summer months in their larger gallery the sketches and water-colour drawings by English masters of the old time, including Cox, Crome, Rowlandson, Copley, Fielding, and Girtin: though it may be mentioned that the magnificent drawing by De Wint of "Lincoln Cathedral," which was No. 48 in this exhibition, has been acquired for the National Gallery of Melbourne, and left our shores last week for its new home in the Antipodes.

The "Summer Exhibition" at the Grosvenor Galleries opened on Tuesday, July 19, and includes some interesting work by British artists. The first room is certainly the best. Here we find James McBey, with a study, clever in its handling of a crowd and of distant buildings, in sunlight, of the Market of Gerona; even better and near this is David Muirhead's "The Bridge," almost like the work of one of the old Dutchmen in its warm brown colour, its reserve, its luminosity, and careful detail. Vivian Forbes has a brilliantly painted "still-life," its subject mainly a white rag and black teapot, though for delicacy and fine colour "The Chinese Pot," by George Clausen, in this room would be difficult to match. In figure work we find two typical heads of "Romany" girls by Augustus John, a charming portrait, reserved in colour, of Miss Doris Lytton by Gerald Kelly, while Glyn Philpot gives us the "Coast of Britain," with the natives, a most unattractive gathering, seen in dim twilight.

Lastly, this room contains Sir William Orpen's pictorial suggestion for "Sowing New Seed for the Board of Agriculture and Technical Instruction for Ireland." In the years preceding the war a great achievement, with which I seem to connect the name of Mr. Horace Plunkett, was done in this direction, but hardly on the lines here put forward. We see a fair-haired young person, pretty well in the garb of Eden, with two equally naked and extremely plain children, who seem to be following the national tradition in a scuffle, scattering the "new seed"; while a sanctimonious gentleman, with his lady friend upon his arm, expresses in unmistakable gesture his disapproval of the whole proceeding, or, more directly perhaps, of the young person in charge of the consignment of seed, whose face, though not her person, badly needs washing. We are left to find out whether this allegory is a satire on Government methods applied to agriculture in Ireland.

In the next room I was interested in Clare Atwood's group of "The Terry Family," seated beneath a "pergola," with delightful broken gleams of light; in David Jagger's girl holding "The Yellow Breakfast Cup," painted with this artist's clean strong drawing; and in two paintings by Emily Court, of which "Silver and Blue" in marguerites and sunflowers is very brilliant flower-painting. The flowers right through in this exhibition are to be noted, especially Robertine Heriot's "Spring Flowers": next to this Isabel Codrington's "Surrey Landscape" has good colour, but needs "pulling together," and is not on the level of some of her recent work.

S. B.

Art News of To-day.

Messrs. Christie, Manson & Woods end their sales with the present month; last week saw some interesting old pictures "from various sources" sold on the 22nd, including a charming portrait of a girl by the French master, J. L. David, and R. Wilson's "Solitude" from Dr. Graham's collection, and the present week brings forward, on Tuesday, the 26th, Chinese porcelain and arms and armour. Some of the Highland broadswords with basket hilts, in one case engraved with the running wolf of Solingen and the name, also on the blade, of Andrea Ferrara, are fine and most serviceable weapons, and the same might be said of a Venetian sixteenth-century "schiavina," with an engraved hilt. We are informed that these famous sale-rooms will not re-open much before November 15, unless some material of special interest comes along, in which case it might be earlier in that month. As a whole, the market has been depressed and prices generally low throughout the season which is just ending, forming a contrast to the somewhat inflated prices of the year preceding. The art market is sensitive to industrial disturbances, such as those we have just passed through: but we may now hope for prices to get back to a normal level, and there seems already a tendency in this direction.

The opening of the King Edward Memorial last week in Waterloo Place, Westminster, was a brilliant function, attended by their Majesties the King and Queen, as well as Queen Alexandra and other members of the Royal Family. In the address read by the Lord Mayor on this occasion it was stated that the Memorial Committee had decided that the form of this Memorial to the late King Edward should be twofold—namely, an equestrian statue and the provision of a park near the river for the enjoyment of the crowded population of the East End of London. The spirited figure which now embodies the first part of this excellent programme shows King Edward on his charger, in full-dress uniform of a Field-Marshal of our Army. The statue, with its white pedestal, stands about 29 feet high, and its site is opposite that of the Guards' Memorial. The sculptor, Sir Bertram Mackennal—for he received only last week the honour of knighthood—may be congratulated on an achievement which adds to a long series of successes, among which we had occasion to mention recently in these columns his admirable sketch model for the bronze group for Australia House, showing the sun-god, Phœbus, driving his team of horses who rise out of the sea.

The paintings of the House of Commons have been recently enriched by two pictures presented by Sir Alfred Bird, member for West Wolverhampton, which show in one case the burning of the Houses as seen from the river, and the House in session in 1878. The first of these of the fire has been attributed to Constable himself, who was said to have watched the scene of destruction from the top of a hackney coach on Westminster Bridge, and both these paintings have been described by the Earl of Crawford as "historic documents of notable value." Before resigning his office the late Speaker, Mr. J. W. Lowther, now Viscount Ullswater, had presented to the House three water-colour drawings of the ruins of the old House of Parliament after the fire of 1834, which are now hung in the lobby below the Terrace staircase.

A sum of £600 has been bequeathed by the late Colonel F. Calderon to the British Academy of Rome for a prize to be competed for by its students either in painting or sculpture. It has been proposed to use this generous bequest by one who was himself an old student in this academy for an annual scholarship. The British Academy of Arts in Rome, which has its seat in the Palazzo Patrizi, and is open to Italian as well as British students for the evening life-classes, is celebrating next year the centenary of its useful art work in Rome.

The sale of the Stowe collection brought some interesting furniture by Chippendale and Sheraton into the market: the great bedstead designed for the visit of the Prince of Wales, about 1737, fetched 150 guineas.

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Magnet House.



MAGNET HOUSE, KINGSWAY, W.C. 2.
FRONT ELEVATION.—R. Frank Atkinson, F.R.I.B.A., Architect.

As the majority of our readers are doubtless aware, the General Electric Company, Limited, have recently removed their head office and showrooms from the building in Queen Victoria Street, which had been their home for over twenty-two years, to their new premises, Magnet House, Kingsway.

A visit of inspection to Magnet House will be amply repaid, for it may safely be said that in no other building has more care been taken to cater for the convenience and comfort of customers during their personal visits and to ensure the prompt and accurate execution of their orders. Every modern labour-saving device has been adopted, the installation being carried out on a scale commensurate with the size of the organisation it has to serve, and being in every instance specially designed to meet its particular needs. Every detail of the electrical equipment of the building is a product of one or other of the works of the General Electric Company, Ltd., or of its associated companies.

As an architectural achievement, Magnet House is excellent in conception and harmonious in design as the main façade (by Mr. R. Frank Atkinson, F.R.I.B.A.), a photograph of which is reproduced, testifies.

The building covers a ground area of 25,722 sq. ft., and has eight floors, including basement. Each floor is divided into eight sections by brick walls, fitted with double iron fireproof doors of various types. These doors, of which there is a total of 130, were made by the company at their Fraser & Chalmers Engineering Works, Erith.

There are five staircases giving access to the various floors, which are also served by seven passenger and eight goods lifts, made and erected by the Express Lift Co., Ltd. The Express Lift Company was also responsible for the complete system of hoists and runways for loading and unloading vans and lorries and for handling bulky goods. This lift equipment, comprising a total of twenty-three machines of various types, forms a complete epitome of modern practice in lift design and construction. For this reason alone Magnet House is well worth a visit by all interested in lifts or goods-handling systems.

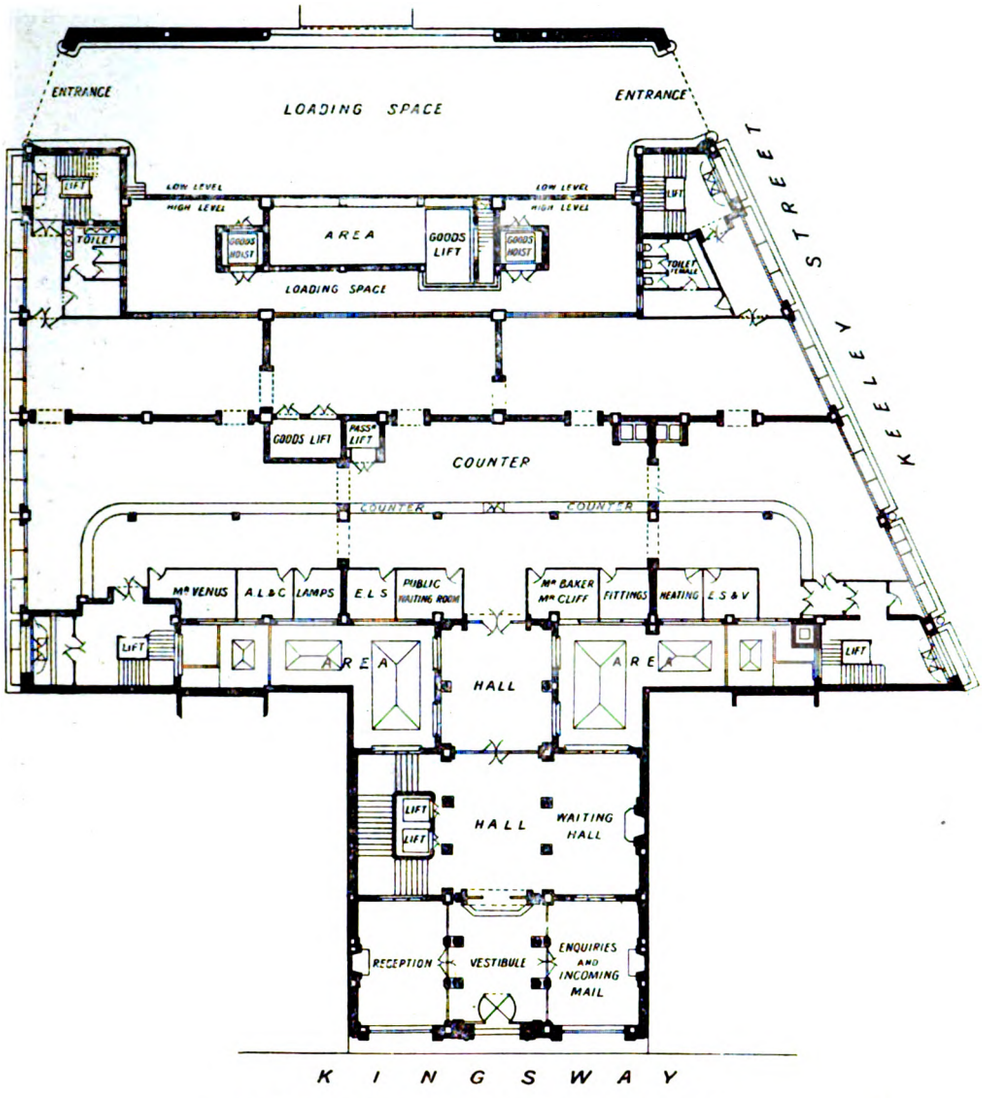
All inter-departmental correspondence is distributed by means of pneumatic tubes. A central exchange is located near the entrance hall for dealing with this service, and is also used as a sorting office for incoming mails, letters being afterwards sent to the various departments by the tubes.

Ventilation is secured by a network of ducts connected to an air-washing plant, and vacuum tubes are also installed for cleaning.

The main entrance hall is of fine proportions, the stone walls and marble floor forming an excellent background for the massive bronze gates and fitments. A wide marble staircase, in the well of which runs two high-speed passenger lifts, leads from the basement to the sixth floor, and at each floor opens out to a spacious vestibule.

In the basement are the showrooms which offer an extraordinarily and comprehensive selection of electrical goods. Suites of rooms are devoted to the exhibition of

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MAGNET HOUSE.—PLAN OF ENTRANCE FLOOR.

electric-light fittings and domestic electrical appliances.

The greater portion of the ground floor is taken up by the sales' counters which form a continuous line 140 feet long. Considerable storage accommodation is arranged behind the counters, and the bins can be quickly replenished from the main stockrooms on the upper floors by means of electric service lifts operated by a system of push buttons. Under the counter runs a silent belt conveyor which carries customers' purchases to separate packing benches at one end.

In the van dock at the rear of the building are three cranes and runways for handling incoming goods. Cases are lifted from the lorries and lowered to the receiving department in the basement. Here the goods are unpacked and distributed by lifts to the stockrooms on the fourth and fifth floors.

The first and second floors are principally devoted to administrative departments.

On the third floor is the well-arranged despatch department. Adjoining the despatch department is the packing room. Goods are delivered to the despatch department by goods or service lifts, and the completed packages are lowered in special containers by combined cranes and runways into waiting lorries in the van dock below.

The stockrooms on the fourth and fifth floors are equipped with some 12,000 steel bins, and are arranged on a definite plan to facilitate the work of looking out goods for the execution of orders.

The private telephone exchange which has fifty incoming lines and 300 internal extensions, is situated on the fifth floor. The whole of the equipment was manufactured by the Peel Conner Telephone Works.

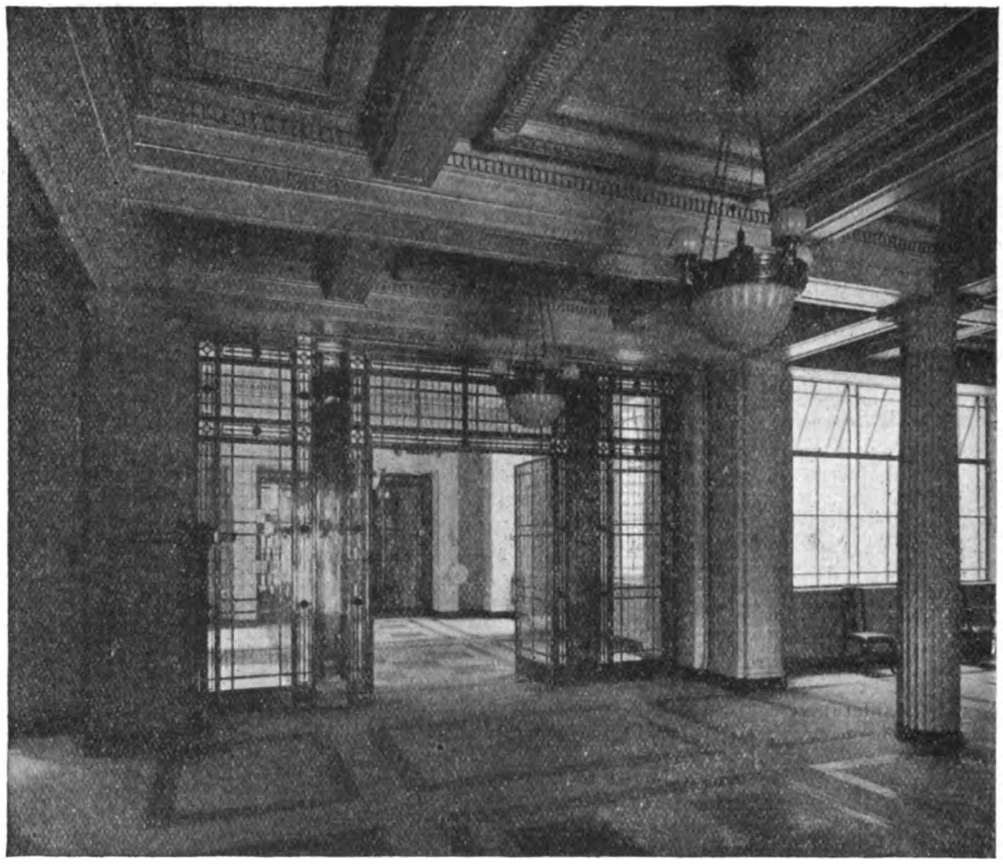
The offices of the illuminating engineering department, a large and well-lighted fixtures design office, and a meter test room and workshop, are located on the sixth floor. Near by is a large staff canteen fitted with a complete equipment of the company's "Magnet" cooking apparatus.

A large lecture hall is also situated on this floor. It has a seating capacity for 350 people, and is used for the social recreation of the staff, as well as for lectures on technical and commercial subjects.



MAGNET HOUSE.—GEORGIAN PERIOD SHOWROOM.

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MAGNET HOUSE.—ENTRANCE HALL. R. Frank Atkinson, F.R.I.B.A., Architect.

The motor rooms for the various passenger and goods lifts are on the roof, which is reached by four emergency staircases.

The General Electric Company, Ltd., extend a cordial invitation to all their clients to visit Magnet House.

Royal Institute of British Architects.

The following notes are from the minutes of the Council meeting held on July 18:—

The Scale of Fees for Housing.—The Council received the resolution of the special general meeting on July 4, and arranged to resume negotiations with the Ministry of Health.

Boards and Committees of the Royal Institute.—The Boards and Committees for the Session 1921-1922 were appointed.

Examinations.—The results of the examinations in June and July 1921 were approved; the Ashpitel Prize was awarded to Mr. L. W. Ingham, and a mark of distinction to Mr. F. I. Tellery.

Testimonies of Study.—Certain modifications were made in the Testimonies of Study for the Intermediate Examination with a view to facilitating the work of the "Recognised Schools."

Exemption from the Intermediate Examination.—Exemption was granted to the successful students of McGill and Toronto Universities at the end of the third-year course in architecture.

The Glasgow School of Architecture.—The five-years' diploma course of the Glasgow School was recognised as exempting from the final examination under the usual conditions.

The School at Rome.—It was decided to exempt the holder of the Rome Scholarship in Architecture from the final examination under the usual conditions at the conclusion of his three years' study abroad, and the holder of the Henry Jarvis Studentship at Rome after his two years' study abroad, provided that their work is approved by the Board of Architectural Education.

Design Problems in the Final Examination.—It was decided that, subject to the approval of the Council, designs prepared at the Royal Academy Ateliers and also at the "recognised" schools may be submitted for approval by candidates for admission to the final examination in place of the same number of R.I.B.A. problems in design.

New Allied Societies.—The Institute of Scottish Architects and the Inverness Chapter of the Institute of Scottish Architects were admitted as Allied Societies of the Royal Institute.

Stoppage of the Housing Subsidy.—It was decided to communicate with the Minister of Health in regard to the stoppage of the housing subsidy in cases in which an architect has already been employed.

Reinstatement.—Mr. A. Hunter Crawford was reinstated as a Fellow of the Royal Institute.

The Standing Committee on Water Regulations.—Messrs. H. D. Searles-Wood and Max Clarke were appointed to represent the Royal Institute.

St. Paul's, Covent Garden.—The Art Standing Committee were authorised to take action for the preservation of the building in conjunction with the Society for the Protection of Ancient Buildings.

An application by the Submarine Memorial Committee has been received by the Local Government Committee of London County Council for permission to erect on the granite pylon on Victoria Embankment, opposite to the entrance to the Temple Gardens, a memorial to the submarine officers and men who lost their lives in the war. The Highways Committee of the Council have no objection to the erection of the memorial in the proposed position, and, subject to the design being approved, the Council are recommended to accede to the application.

The New Métropole, Northumberland Avenue, S.W., is now reopened to the public after having been commandeered by the Government in 1916 for a War Department. Elaborate steps have been taken in order to transfer the old, rather drab building into a luxurious, beautifully decorated hotel which will challenge comparison with any rival at home or abroad. Mr. R. Frank Atkinson, F.R.I.B.A., was the architect employed by Gordon Hotels, Ltd., for the reconstruction. Many of the decorative schemes were designed by Mr. Ashby Tabb.

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Correspondence.

Building Materials, &c., for Trinidad.

To the Editor of THE ARCHITECT.

SIR,—I beg to state for the information of your readers that His Majesty's Trade Commissioner at Trinidad reports to this Department that he has received an inquiry for catalogues and current prices of steel indented bars and concrete specialities such as stirrups, column re-enforcements, and expanded metal.

Similar particulars are required in regard to sanitary goods in connection with which it is suggested that quotations should be sent for complete lavatory and water-closet outfits which to compete with American supplies should be cheap but efficient.

The inquirers also intend to establish a drawing office, and is therefore anxious to obtain the catalogues of firms able to supply drawing-office equipment and paper, blue print, chemicals, and apparatus.

He is an auctioneer and a large dealer in furniture and has from time to time dealt in building materials, while his partner is the agent for a well-known insurance company.

The firm have been obliged to obtain from the United States most of the material required for a two-storey concrete building which they are erecting, but they are now anxious to ascertain how far such supplies can be obtained from the United Kingdom at competitive prices in view of the comparatively large supplies which are likely to be required in Trinidad in the near future. The Port of Spain City Council has under consideration the erection of 1,000 cottages at Woodbrook, and the number of Customs warehouses is to be increased in the near future.

The name and address of the firm referred to may be obtained by United Kingdom manufacturers and exporters on application to this Department.—Yours, &c.,

L. N. BARKER, for the Comptroller-General.

Department of Overseas Trade,
35 Old Queen Street, London, S.W. 1.
July 20, 1921.

[Any communication respecting this matter should be addressed to The Comptroller-General, quoting: DOT/6083/ED/SC(2).—ED.]

Islington Town Hall.

To the Editor of THE ARCHITECT.

SIR,—My attention has been called to a statement in your issue of July 8, and which can only mean me, wherein you insinuate that my report to the Mayor was biassed, I being the architect for the new Town Hall. Had you known what had transpired I feel sure you would not have said what you did, and I ask you now to make the "amende honorable" in your next issue, in as prominent a manner as you made the charge.

The facts are these. On November 27, 1919, I was instructed to look over the present Town Hall with a view to enlargement by addition of another storey, or by any other means I thought desirable. This I did, and reported fully on the subject on December 8, 1919. I had no idea then of being appointed the architect for a new Town Hall, as none was in contemplation and it was only on the strength of that report that the Borough Council began looking round for a new site and gradually formulated their scheme for a new building.

The published report of mine, which you have seen, dated July 20, 1920, was but a crystallisation of my previous statements and refers to the previous report.—Yours, &c.,

E. C. P. MONSON.

Finsbury Pavement House, Finsbury Pavement, E.C. 2,
July 26, 1921.

Building Guild Contracts.

To the Editor of THE ARCHITECT.

SIR,—I enclose for your consideration a memorandum on future forms of Guild contracts. From this you will see that, whilst the Building Guild will continue to build upon basic cost *plus* a percentage to cover our overhead charges and our liability in the matter of continuous pay, we have now decided to accept liability for any excess over the maximum sum, which is, in practice, the estimate.

I would be obliged if you would allow me to state that any architect can receive a copy of this memorandum by application to me at the above address.—Yours, &c.,

For the Building Guild, Ltd.,
S. G. HOBSON, Secretary.

The Building Guild, Ltd.,
Guild House, 259 Upper Brook Street, Manchester.

Wages in the Building Trade.

THE National Wages and Conditions Council for the Building Industry at meetings held on July 14 and 15 dealt with and gave decisions on the following matters:—

Mr. Stephen Easten was elected Chairman of the Council and Mr. G. Hicks was elected Vice-Chairman. Messrs. A. G. White and R. Coppock were elected Joint Secretaries.

The Council considered the evidence taken at the previous meetings upon applications from the North Western Area for variations of the grades in which the various towns are at present placed. The Council decided, in view of the fact that the Area Council had lately carefully regraded the whole of this area, to make no alteration in the present gradings.

Consideration was also given to the evidence taken previously upon an application for regrading of Plymouth, Bath, Gloucester, Swindon, Cheltenham, and Hereford which had been referred to this Council from the National Board of Conciliation the case having been sub judice for many months. The Council decided that these towns should have their rate of wages raised by one penny per hour as from August 1 next.

The Council then heard evidence upon fresh applications received in accordance with the rules of the Council for variations in existing grades from various areas.

The Council had previously decided that it is a necessary corollary to its constitution that a scheme should be prepared to link up the Council with the existing Area Joint Councils so that these bodies should give preliminary consideration to questions of regrading and assist the Council by the requisite local information as to the relative positions of the various localities.

In consequence of the views to that effect put forward to the applicants by the Council, the applications from the following areas were withdrawn for consideration first by their respective Area Councils: Yorkshire, Midlands, South Wales, and Scotland.

Evidence was heard from the southern counties, the eastern counties, and south-western counties areas, upon their applications for a general regrading of the areas.

The Council gave the following general decision upon the regrading applications:—

"Having regard to the principle accepted by all the parties concerned by the adoption of this Council of the operation of the sliding scale, and the very recent decision of this Council, the Council cannot see its way to evade the results by either increasing or decreasing wages on applications for regrading. That where regrading is necessary the parties shall first bring the matter before the Regional Joint Councils in accordance with its previous decision."

The Council considered the notice from the employers for an extension of the forty-four hour week. After some discussion it was agreed to defer the further consideration of this matter to the next meeting.

The Council considered the question of whether any variation should be made in the rates of wages consequent upon a variation in the cost of living, but a difference of opinion arose as to the Ministry of Labour Index figures to be taken in arriving at a decision. As agreement could not be reached in the Council it was resolved that four representatives from each side should be appointed as arbitrators, and that the arbitrators be instructed to obtain advice necessary to enable them to come to an agreement prior to August 1.

A meeting of the Board of Arbitrators was held on July 20, when the following decision was unanimously arrived at:—

"That this Board of Arbitrators decides, after hearing all the evidence and receiving the advice of Mr. W. H. Stoker, K.C., that under Clause 14 of the National Wages and Conditions Council Agreement, there should be a further reduction of 1½*d.* per hour in all grades on and after August 1, 1921; but in view of the misunderstanding which existed, this Board agrees and decides that the reduction shall take place as to 1d. per hour on and after August 1, 1921, and as to the remaining ½d. per hour on and after September 1, 1921."

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Scottish Housing Costs.

A COMMITTEE appointed in February last to inquire into the high cost of building working-class dwellings in Scotland have now forwarded their report to the President of the Scottish Board of Health. The Committee was constituted as follows:—Mr. G. W. Currie, London (chairman); Mr. J. F. Armour, Glasgow, organising secretary of the United Operative Masons' Association of Scotland; Mr. Wm. Cross, Glasgow, secretary of the Amalgamated Slaters' Society of Scotland; Mr. Thomas Graham, Edinburgh, Scottish National Building Trades' Federation; Mr. F. H. Lightbody, F.F.S., F.S.I., Edinburgh; Mr. James Lochhead, F.R.I.B.A., Hamilton; Mr. David Ronald, M.I.C.E., F.R.S.E., Chief Engineer, Scottish Board of Health; Mr. Kenneth Sanderson, W.S., Edinburgh; Mr. John Train, building contractor, Glasgow; Mr. J. F. Wallace, president of Edinburgh and District Trades Council; Mr. John White, builder, Edinburgh; Mr. John Wilson, F.R.I.B.A., Principal Architect, Scottish Board of Health; secretary —Mr. Niven F. M'Nicoll, Scottish Board of Health; and the terms of reference were to inquire and report as to the reasons for the high cost of building working-class dwellings in Scotland and to make recommendations as to any practicable measures for reducing the cost.

In the course of the report the Committee state that twenty-one meetings had been held, at which evidence was given by fifty-seven witnesses who had experience and knowledge of the subject. In an introductory review the Committee states:—If we take it in a very general way that a house which a few years ago would have cost £300 has been costing £1,000, it will be seen that a startling change in the character of the problem has taken place within a very brief period. To complete this programme of 115,000 houses the cost, say in 1916, would, on the basis we have taken, have been £34,500,000; to-day it would be £115,000,000. This great increase in costs gives point to our inquiry, but, while it must be of imperative importance to have regard to costs and the financing generally of such a programme of housing, we cannot see that it is possible for the public conscience to relax so long as the housing conditions of Scotland remain as they are. The state of working-class housing in Scotland remains substantially as it was when the Royal Commission reported in 1917, and building is not yet overtaking the annual wastage. In Glasgow, for example, which has set out with a building programme of 57,000 houses, there are at present 12,000 houses which are condemned by the Medical Officer of Health as unfit for human habitation, but which, owing to the impossibility of providing alternative and decent accommodation, are still occupied. In Lanarkshire it is still true to say that several villages would require to be swept away entirely before the housing conditions could be raised to an ordinary but minimum standard of decency. We desire to record our unanimous conviction that no one with the most elementary sense of civic responsibility can be brought into contact with such scenes of crowded squalor as were forced upon our notice when visiting Dundee and Glasgow (where some two-thirds of the whole population live in houses of either one or two rooms), without a feeling of uneasiness as to the effects which these conditions may have upon the physical, moral, and political condition and temper of the people. In our view, there can be no slackening of the community's responsibility. The circumstances and form in which this responsibility should manifest itself may, however, in view of costs and financial difficulties now prevailing, require consideration. It is with this question, with the factors that have entered into the high costs prevailing to-day, and with measures towards reducing them, that this report will deal.

Under the heading "General Considerations" the Committee proceed to discuss consideration of policy and administration, pointing out that, owing to the three-year time limit set local authorities as the period during which they were entitled to the benefit of the Government subsidy, forced the authorities to place contracts as speedily as possible, and conveyed the impression to contractors that the whole programme had to be completed within three years. As a result of this the building resources of the country rapidly became overtaxed, and the sudden creation of demand into a short period created high costs everywhere.

Surveying the problem under present conditions, the Committee state that many of the difficulties, while related to expense and economy, are not such as a mere outpouring of money will solve. In this connection they emphasise the importance of the keenest economy, and of a rearrangement of the public time-table. The limitation of the subsidy period, for example, was intended to induce Local Authorities to push on energetically and to produce the badly-needed houses. The effect, however, was to produce contracts for houses rather than houses, and less than 2,000 have now been completed out of the total of 115,000 estimated to be required. They advise the withholding for the present of further commitments until some, at least, of the advantages of the prospective fall in costs can be obtained.

After advocating the extension of the subsidy period to five years, and longer if necessary, the report goes on to discuss the allocation of the financial responsibility between the State and local authorities, and the general administration of the scheme by the Scottish Board of Health, who have "maintained a reasonable balance between the zeal for immediate economy and the necessity for ensuring that savings effected be not penny wise and pound foolish. We have examined the figures which have been submitted to us for a number of schemes showing that the insistence by the Board's officials on economies at various stages has effected savings ranging from £10 to £150 per house, and we recognise that in the aggregate the total savings effected in this way on the contracts already entered into must amount to a very substantial sum. A review of those general considerations and the conclusions we have drawn from each leads us to believe that, owing to its fluctuating nature, the whole problem of the provision of houses for the working classes in Scotland should be reviewed, in, say, three years, and that not only the requirements but also the financial policy of State assistance should be included in that review."

CONTRACTORS' PROFITS.

While unable to give anything but a very general opinion as to the profits which are being earned by contractors the Committee offer the view that "it is reasonable to believe that opportunities presented themselves for the earning of considerable and even undue profits, and that there have been instances of contracts being let not only at the top of the market for material and labour, but on terms highly favourable to the contractor."

The various forms of contract entered into are noted and commented on by the Committee, who express themselves against lump-sum-profit contracts, and agreed-price contracts, preferring the sliding-scale contracts. What are termed "extras" will, it is anticipated, emerge in claims of between fifteen and twenty per cent. on the contract price of the earlier schemes, but in order that full advantage may be obtained from any future fall in the costs of material and labour, a strict audit is urged by the Committee.

MATERIALS.

Included in the report are comparative tables showing the prices of all building materials in 1914, 1919, and 1921, the Committee stating that the scarcity of materials in some instances having a direct effect on the cost, and in view of the actual and prospective scarcity, are in favour of foreign material being admitted into the country without being subjected to unnecessary impediment. In this way a more reasonable level of price might be reached for home-produced material.

The Committee state that the brick works available in the aggregate in Scotland are quite insufficient for its own needs. Some observations are made on the relative merits of brick and stone construction. Scotland, they state, is a stone country, and undoubtedly the use of

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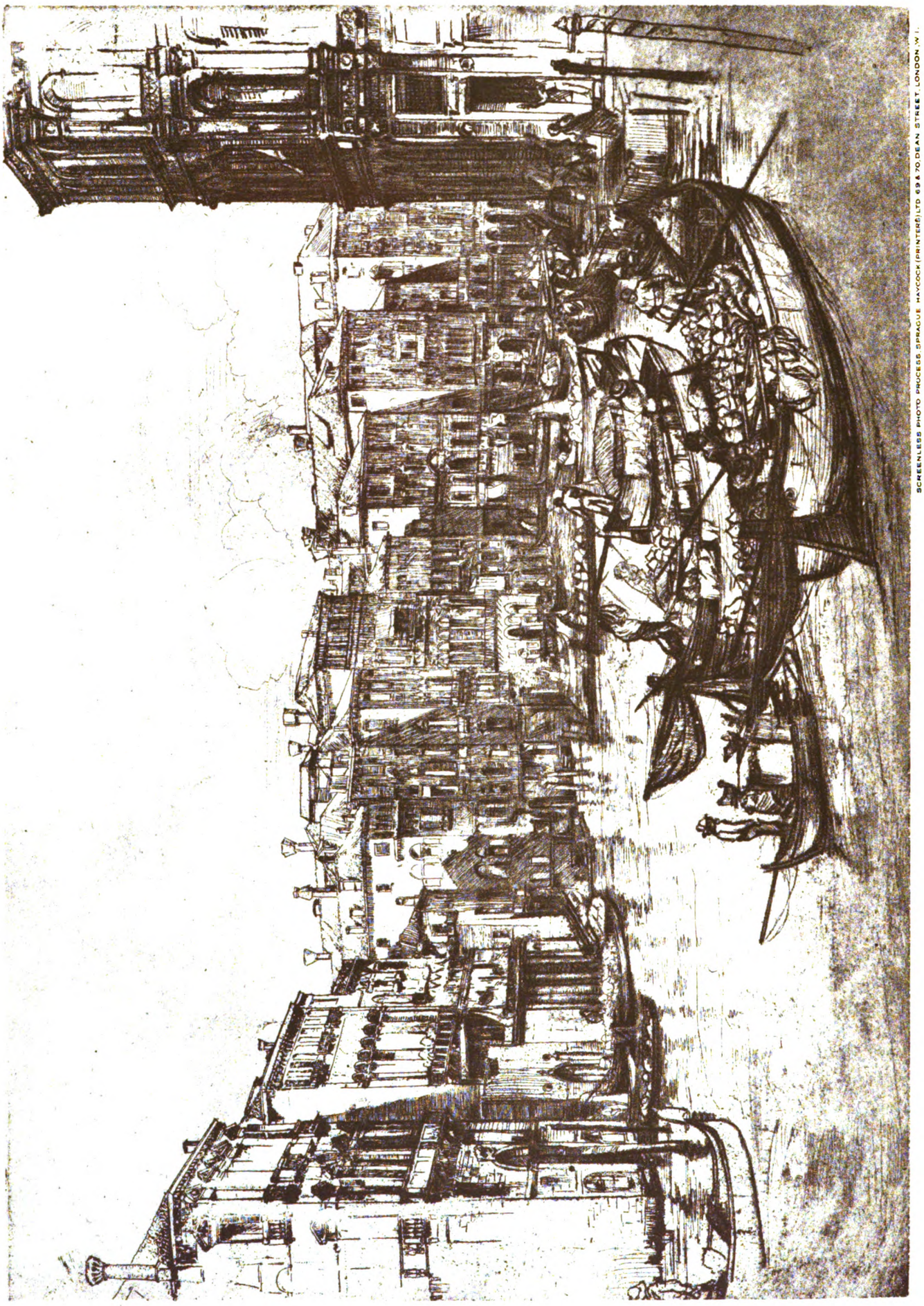
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WAYSIDE CROSS ON MAIN ROADS AT HILDENBOROUGH, KENT.

MR. H. P. BURKE DOWNING, F.R.I.B.A., F.S.A., ARCHITECT.

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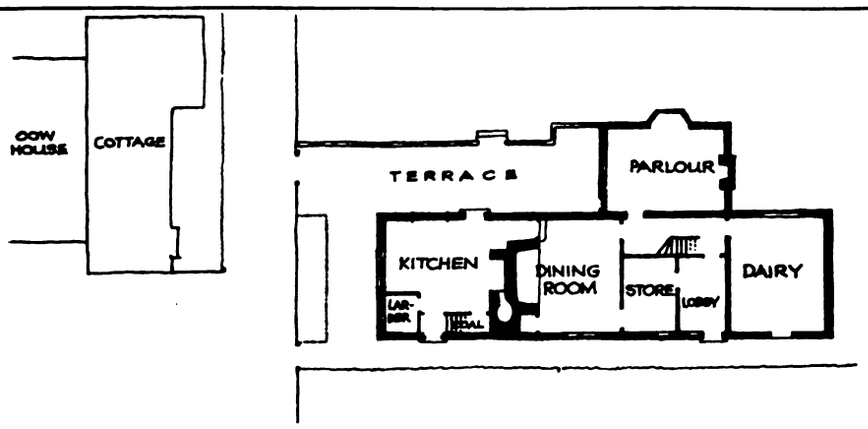


MARKET, VENICE.
By DONALD SHAW MACLAUGHLAN.

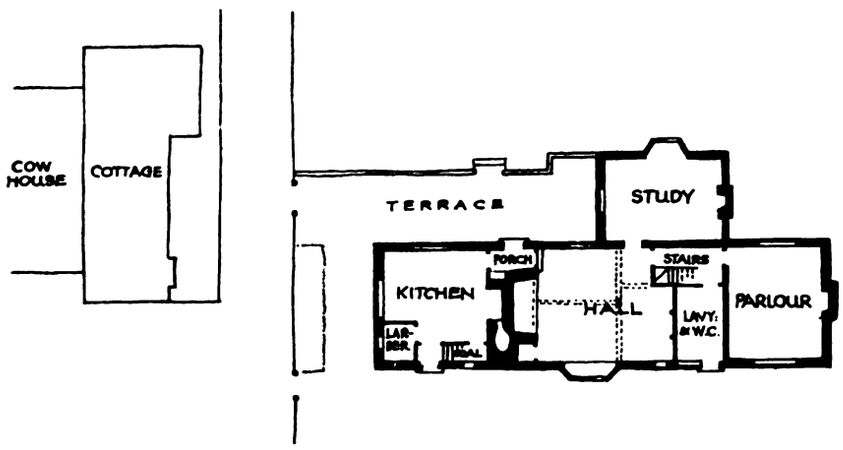
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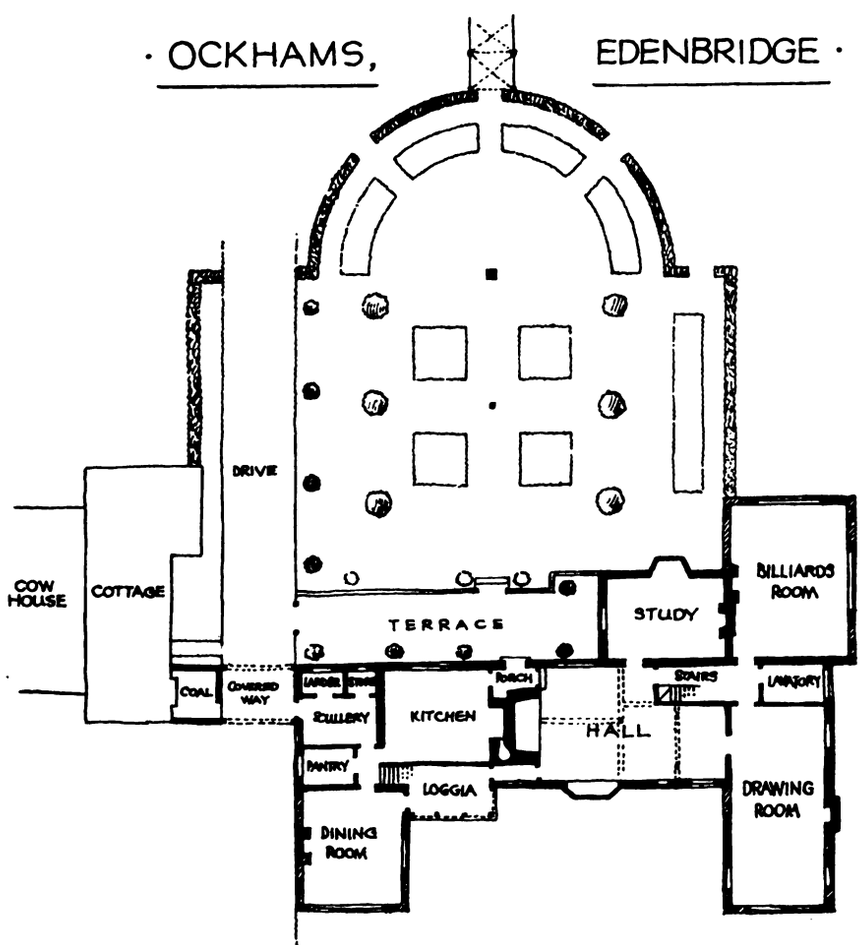


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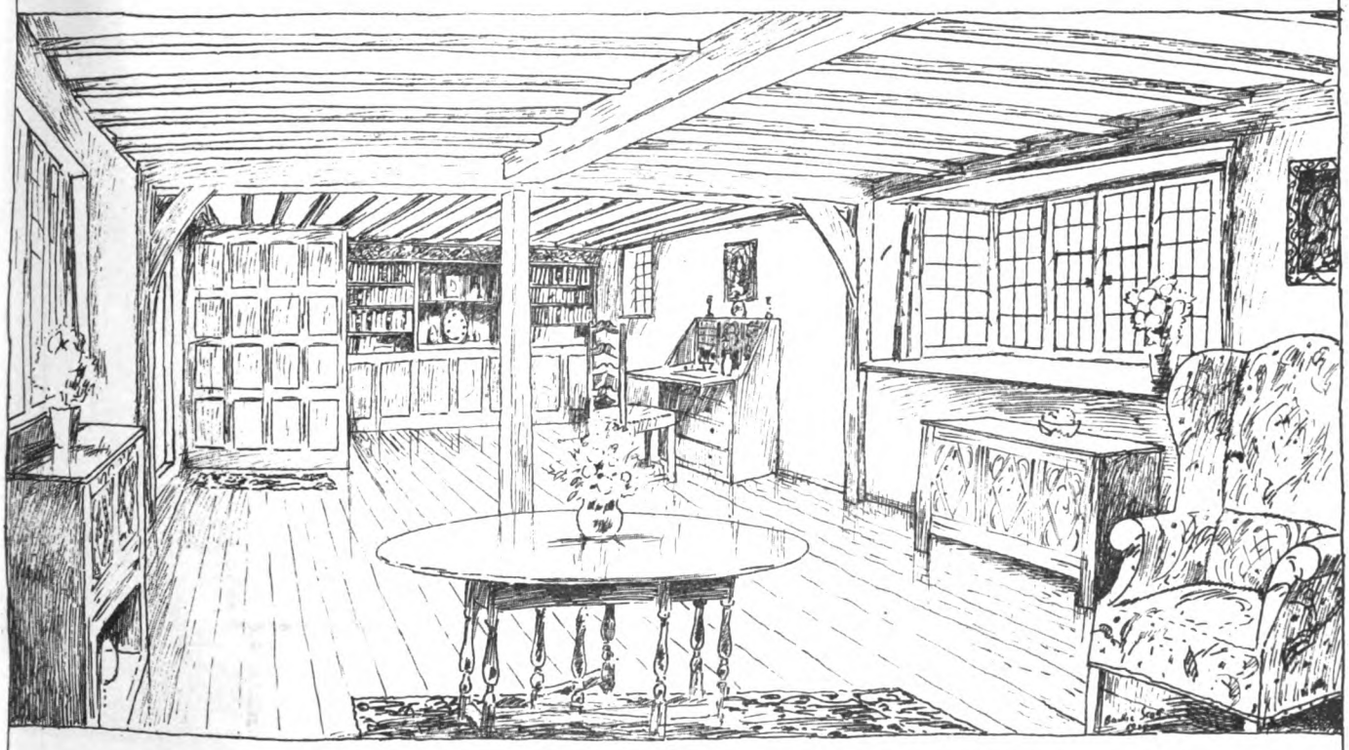


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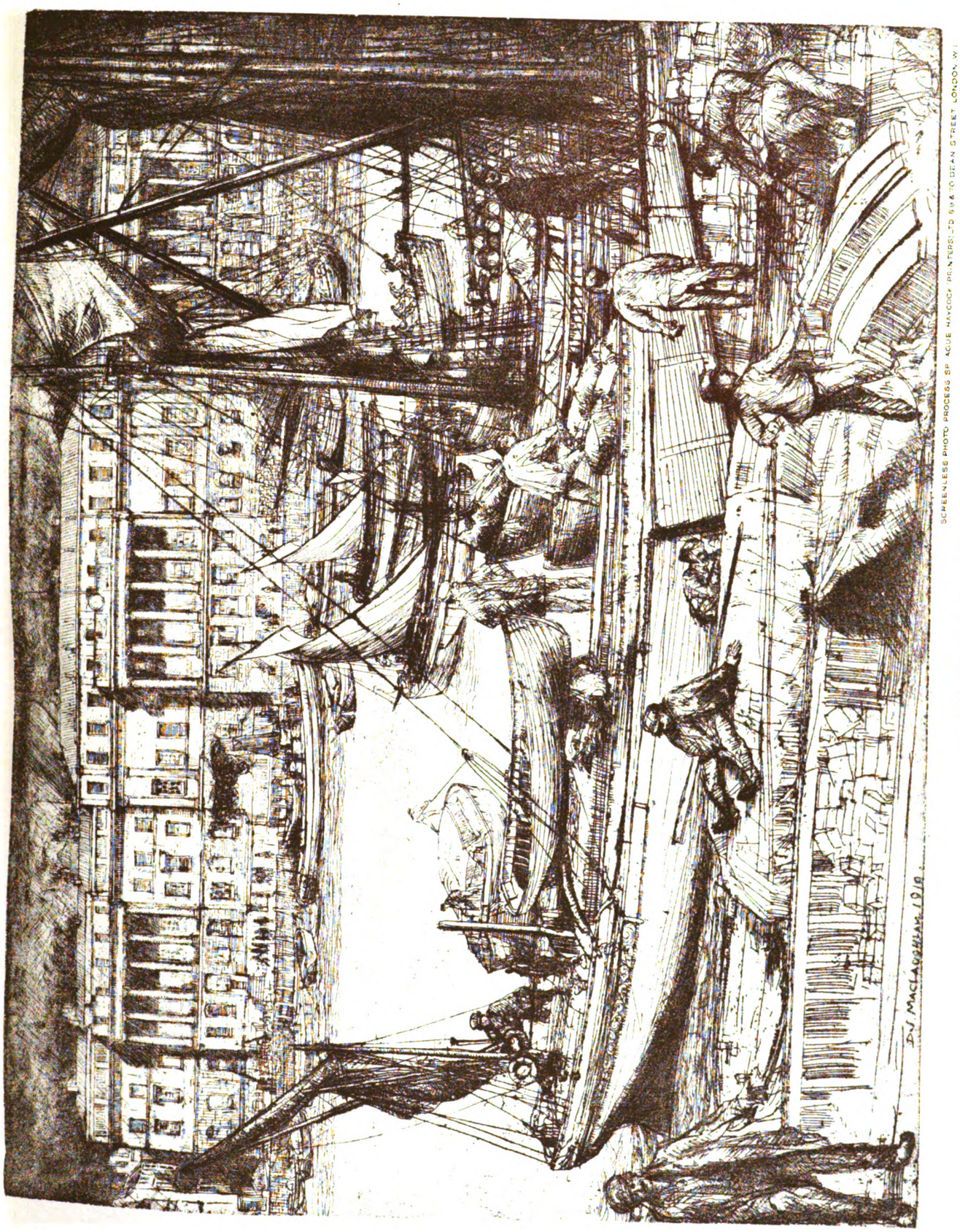




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LIFE OF THE THAMES.
BY DONALD SHAW MACLAUGHLAN.
FROM THE LEICESTER GALLERIES

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VILLAGE CROSS AT STOPHAM, SUSSEX.

MR. H. P. BURKE DOWNING, F.S.A., DIOCESAN ARCHITECT.

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bricks to the almost complete exclusion of stone in some areas has effected a revolution in the building trade in Scotland. Except in the Highland area and in a few other areas, brick is almost exclusively being used. This is due entirely to the fact that houses of the standard required for housing schemes can be built more economically in brick than in stone. The Scottish Board of Health, the Committee had learned, had adjusted a specification that aimed at making it easier for stone to compete with brick.

The Committee advise that a larger margin between the cost of bricks and that of stone could reasonably be allowed by the Board. At this juncture the entry of stone into the market on a large scale would produce a healthy effect in a competitive way on supply and price of both brick and stone. There is abundant stone available in Scotland and a large supply of labour for stone work—important considerations when both materials and labour are scarce. So far the use of concrete in Scotland has been on a restricted scale; but owing to the progress that is being made in the development of concrete as an economical and durable building material, local authorities should give full consideration to forms of construction in concrete. Reasonable competition between one material and the other should be encouraged.

More might have been done to standardise fittings and certain materials. They consider that the Scottish Branch of the Department of Building Materials Supply should be closed down with all convenient speed, with a view to Local Authorities purchasing in the open market. The Committee attach importance to the extent to which rings and combinations have eliminated competition in the most important building materials.

Wages.

Wages bulk largely in the cost of building working-class houses, and the increases that have taken place since 1914 have had an important bearing on the increased costs. The following figures supplied by the Scottish National Building Trades' Federation show the standard rates of wages per hour for various trades in Edinburgh and Glasgow in 1914:

	Edinburgh.	Glasgow.
	d.	*d.*
Bricklayers	10	11
Glaziers	9½	9½
Joiners	10½	10½
Masons	9½	10½
Painters	9½	10
Plasterers	9½	10
Plumbers	10	10½
Slaters	9½	10
General Labourers	6	7

Various increases were given throughout the war until, by agreement in November 1920, the wage for all the building trades was fixed at 2*s.* 4*d.* per hour for Class "A" districts, 2*s.* 3*d.* per hour for Class "B" districts, and 2*s.* 2*d.* per hour for Class "C" districts, and 1*s.* 11¼*d.* for all building-trade labourers irrespective of district. Under a recent agreement wages have been reduced by 2*d.* per hour, to take effect from March 16, 1921, and thereafter wages will be governed by a sliding scale based on the cost of living.

Output of Labour.

With regard to output of labour, the Committee state that the evidence is conflicting. Numerous statements were rejected as having their origin in misapprehension and in failure to take cognisance of various factors which vitiate a comparison between pre-war and post-war conditions of work. The war removed from the bricklaying trade many of the young and most energetic operatives. The experience of operatives on war contracts has not been conducive to rapid methods of working. The loosely arranged terms of many contracts for munitions of war in the earlier days of the war account for slackness amongst operatives and contractors alike. Other factors in reducing output were the reduction of the number of hours per week and delays in the delivery of materials. There is evidence to show that in certain schemes the output of bricklayers has touched as low a point as 261 bricks per day, but this figure must be regarded as quite exceptional. Contractors speak of an output ranging from 300 to 600 bricks a day and even more. A difference between 700 and 300 was estimated to account for a difference in the cost of an average house of £62 10*s.* They were satisfied that the rate of output had recently been restored more nearly to its previous level.

Building Guilds.

Several Guild Committees have been set up in Scotland, notably in Edinburgh, Glasgow, Dundee, and Dunfermline, and the Committee understand these committees tendered for contracts to the value of several million pounds. Several of the tenders had been rejected on the ground that they were higher than those from private contractors. The Glasgow Building Guild were carrying out a contract for the plumbing work of a scheme in the Burgh of Rutherglen, and, the Committee understood, to the entire satisfaction of the authorities. Their original estimate was approximately £2,000 less than the next lowest tender. Building Guilds throughout England had in hand at present contracts to the value of approximately two million pounds sterling. The operations of the Guild Committees in England appeared to be successful, though on a small scale. The first completed houses built by the Guild Committee for the Bentley Urban District Council had been completed in four months, at a total cost of £760 per house—a saving of approximately £200 per house as against private contractors. The principal Guilds' witnesses informed the Committee that the chief obstacles in the way of their undertaking large numbers of important contracts were financial, and that they could undertake a great deal more work than they had been entrusted with without overburdening themselves with financial responsibilities. From the point of view of the local authority the element of uncertainty as to the price charged by a Guild was an inconvenience. In the Committee's view sufficient warrant existed to justify the local authority considering tenders from Guilds, though a number of them were of the opinion that they should only do so where the Guilds competed on the same terms as private contractors.

Private Enterprise.

After suggesting several ways in which economies in construction may be effected, the report deals with houses built by private enterprise. Of the 22,000 houses for which contracts have already been entered into, little more than 2,000 houses are being built with the aid of the Government subsidy to private persons. As costs are at present, the subsidy of £230 to £260 is not sufficient to induce the builders to enter to any extent on operations under the scheme. Here and there, despite the inadequacy of this subsidy from his point of view, a speculative builder had constructed a few houses for immediate sale; but speculative building as it was known thirty years ago is practically non-existent. The high level at which rates and taxes now stand is, no doubt, calculated to deter builders from enterprise. The economic rent of a house which is at present costing £1,000 to build would be at least £70 a year; the rent which is being charged by local authorities may be taken as an average all over Scotland of £25 a year, so that the annual loss on the barest estimate amounts to approximately £45. At 6 per cent. this represents a capital sum of approximately £750. Against this figure the subsidy of £230 to £260 is seen to be clearly inadequate to induce the speculative builder to enter the field, and we do not see any immediate prospect of private enterprise taking any substantial part in the provision of working-class houses in Scotland. Notwithstanding the inadequacy of the subsidy to meet the difference between the cost and the economic value of houses, a number of persons are availing themselves of the private subsidy and making good the deficit themselves. To the extent to which this deficit is made good by private persons the public purse would appear to be relieved. At the present cost of building it would indeed appear that even with an increased subsidy the State

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would benefit financially from the private subsidy as against the subsidy to local authorities.

ECONOMIES IN CONSTRUCTION.

The Committee make a number of suggestions with a view to securing economies in the housing schemes. The terrace-cottage block in groups of four to six houses should receive more consideration, as against the semi-detached blocks. This is estimated to save from £40 upwards per house. Other economies relate to the reduction of underbuilding on sloping sites. While they are satisfied that the general specification of the Scottish Board of Health leaves no room for economy, except in a few details, the houses constructed in conformity with it will last throughout, and even beyond, the estimated sixty years. The Committee think bricks should be standardised at 3½ inches thick. Economy could be effected by further simplification of drainage. Home timber is regarded as cheaper than imported timber. Smaller slates might be used. In view of the high cost of cast-iron pipings, zinc rain-water pipes might be more freely substituted. In the hot-water supply the cistern might be dispensed with. Economy in cost and space might be effected by the free use of a combined arrangement for baths and wash-hand basins, utilising one trap and one set of taps.

RECONSTRUCTED PROPERTY.

With regard to reconstructed property, the Committee state that the experience of Edinburgh is that insanitary property in the older parts of the town can be converted into serviceable houses at approximately half the cost of new houses. To this saving must be added that effected in municipal services, such as roads, water, drainage, and gas. The Committee think the time is rapidly approaching when, in the larger centres at least, reconstruction schemes will assume first importance in the problem of housing. Housing schemes, the Committee observe, are still leaving untouched the problem of the slum dwellers. The tenants of the new houses are generally of the best-paid artisan class and the lower middle classes. It was expected that there would be a process of elevation in regard to housing, the artisan proceeding to the new house, leaving his old house for the present slum dweller. The Committee are very doubtful whether, under present social conditions, this expectation is likely to be fulfilled. The indications are that the "ladder" process will not work automatically, and that in many cases the slum dweller will remain in his present environment until that environment is altered.

"The Architect" Fifty Years Ago.

JULY 29, 1871.

THE Court of the Company of Turners, in continuance of their action last year, propose to give, each year, their silver medal and the freedom of the Company and of the City of London to any one workman or apprentice in the trade who may send in the best specimens of hand-turning for the year. The material chosen for this year's competition is wood; but a variation will take place every year, and ivory, metals, stone, and spar will have their places in rotation in the competition list. The work of the competitors must be sent in before October 7. We are glad to see a small guild like that of the Turners thus endeavouring to encourage excellence in the craft which they represent.

LORD COWDRAY who recently gave the Corporation of Colchester £10,000 in order that the castle built by William the Conqueror's steward might become the property of the town, has added another £10,000 for the purchase of adjoining properties.

MR. DELISSA JOSEPH, F.R.I.B.A., joint honorary secretary of the R.I.B.A., London Building Act Committee, sent the following letter to the "Observer" and it was published in the issue of July 24 under the heading "Higher Buildings for London": "Sir,—In order to avoid any misunderstanding I shall feel obliged if you will allow me to point out that the scheme for 'Higher Buildings for London,' which has been prepared by the Building Act Committee of the Royal Institute of British Architects, has not yet been submitted to the Council of the Institute, and that, therefore, the Council have not yet had an opportunity of forming an opinion thereon."

The London County Council.

CANCELLATION OF CONTRACTS ON ROEHAMPTON ESTATE.

THE proposal of the Housing Committee to compensate the building contractors on the Roehampton Estate by payment of £40 in respect of each house it was decided not to build was vigorously criticised at this week's meeting of the London County Council.

Opposition generally was on the lines that the Council was not justified in making any such payment, and that the full building programme ought not to be curtailed.

Mr. Sumner, a Labour member, made an especially bitter attack on the Committee. He reminded the Council that the Building Guild was prepared to build all the houses necessary, not only for London but throughout the country. Not only was it now proposed that the Roehampton contractors should receive a large sum of money for nothing, but they would later again take the opportunity of "bleeding" the Council. Contractors generally, said Mr. Sumner, were the "biggest frauds and thieves in creation," and the majority on the Council knew what they were doing and "backed them every time."

Mr. Walker moved and Mr. Percy Harris seconded the addition of the following words to the Committee's recommendation for curtailment of the contract: "provided that the position of the Council be not prejudiced in regard to the construction in future, under the Assisted Housing Scheme, of the houses which are now to be omitted."

With this addition the recommendation of the Committee was adopted.

RENTS OF PRE-WAR HOUSES.

The Housing Committee reported that the additional ten per cent. allowable under the Rent (Restrictions) Act, 1920, had been charged on the Council's pre-War houses since July 4, and was estimated to yield £12,500 during the current financial year and £16,685 for a full year. No difficulty had been experienced in collecting the increased amount. In spite of some opposition the report was adopted.

Ottawa Government Buildings Competition.

LETTERS have been received by the Royal Institute of British Architects from Messrs. Perron, Taschereau, Rinfret, Vallee, & Genest, barristers, of Montreal, reporting the result of the case of "Saxe and Archibald *v.* The King." This firm was briefed by the Royal Institute to represent its interests in the case and to assist the competitors. The competitors have lost their case. In the judgment the following words occur: "I find that the Crown was, and is, absolutely justified in not proceeding to the erection of the buildings in question, a construction which would involve an expenditure of several millions of dollars when our Canadian Exchequer is now overburdened with the debts occasioned by the late iniquitous war. These circumstances operate as an impossibility of performance, and I so find, under the numerous authorities cited herein, and that the suppliants are only entitled to recover the sum of $3,000 offered them by the Crown's statement in defence. . . . There will be judgment adjudging that the suppliants are entitled to recover the said sum of $3,000, with costs up to the stage of filing defence. All other claims set up by the suppliants are dismissed without costs to either parties."

The R.I.B.A. Council of course regret the result of the case, but they feel that the action which they took in support of the competitors was fully justified.

By a further letter, dated July 5, 1921, the Royal Institute is informed that the plaintiffs have decided not to appeal against the judgment.

MESSRS. GODMAN & KAY, of Horsham, are the architects for the female ward and other extensions about to be made at the Littlehampton and District Hospital.

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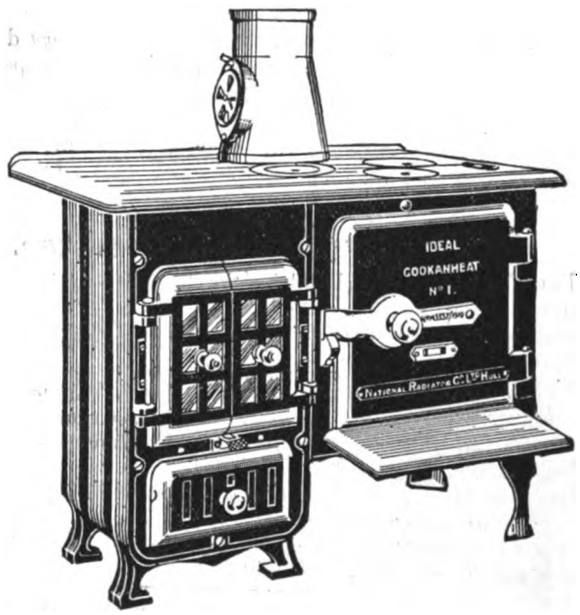
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Builders' Benevolent Institution.

At the seventy-fourth annual general meeting of the Builders' Benevolent Institution, held at 48 Bedford Square, W.C., on July 20, the annual report and the audited account of income and expenditure for the year ended July 7, 1921, were received and adopted. The following officers for the ensuing year were elected:

President.—Mr. A. B. H. Colls, F.I.O.B. (Messrs. Trollope & Colls, Ltd.).

Treasurer.—Mr. Frank May, J.P., F.I.O.B. (Messrs. Holland & Hannen & Cubitts, Ltd.).

Hon. Auditors.—Mr. John T. Bolding and Mr. Hubert S. Ward, F.C.A.

The following were re-elected members of the Committee of Management:

Mr. G. M. Burt, Mr. Thomas Hall, Mr. B. Hannen, Sir Henry Holloway, Mr. H. T. Holloway, Mr. J. W. Lorden, M.P., Mr. J. C. Nicholson, and Sir Frederick Rice.

The Committee of Management, in its seventy-fourth report, express their appreciation of the services rendered to the Institution by Mr. Walter Lawrence as President for the past year, whose endeavour to augment the funds was so successful that at the annual dinner in November last the amount of contributions received exceeded the total collected in any previous year. As a result, the Committee were in a position to make a Christmas gift of £5 to each pensioner. The Committee were very glad to be able to do this, as they fully realised the fact that many of the pensioners had found extreme difficulty in meeting the high cost of living, particularly during 1920.

An election of pensioners was held in June, as advertised in the public and trade Press. The applications have been investigated by members of the Committee, with the result that five men and two women have been added to the pensioners' list—viz., Mr. H. Hughesdon, Mr. C. J. Heryet, Mr. W. W. F. Bennett, Mr. T. Andrew, Mr. H. J. Heard, Mrs. A. M. Nicholas, and Mrs. C. J. Haynes. A pension has also been granted to Mrs. E. I. Downs, widow of the late Mr. W. B. Downs (pensioner).

There are now sixteen men and thirty women receiving the benefits of this Institution.

The Committee report that Mr. A. B. H. Colls, of Messrs. Trollope & Colls, Ltd., has accepted the presidency for the coming year, and trust that he will be supported by the presence of a large number of subscribers and donors at the annual dinner, which it is proposed to hold in November next.

Unhealthy Areas Committee.

The Committee appointed by the Minister of Health to consider and advise on the principles to be followed in dealing with unhealthy areas has presented its Final Report.* An Interim Report was published last year. Mr. Neville Chamberlain, M.P., was Chairman of the Committee, and the full terms of reference included the consideration of schemes of reconstruction as distinct from clearance and the use of the site cleared for re-housing, factory or other purposes.

The Committee reports that clearance and reconstruction on any large scale can hardly be attempted until the existing shortage of houses has been substantially reduced. Such clearance and reconstruction should be in accordance with a prepared plan dealing not only with the reconstructed area, but with the whole town and district, taking into account the proper distribution of housing, commercial and industrial buildings, facilities for transport, &c.

Pending reconstruction, it is suggested that unhealthy areas might be materially improved if they were purchased by local authorities, such purchase to be compulsory, and the houses altered, repaired, and managed on the Octavia Hill system. Where dense overcrowding exists, as in the London area, it is recommended that the future demolition of houses, to make way for factories, should be checked, and that the building of garden cities in the neighbourhood should be encouraged.

It is proposed that where overcrowding exists (as in the London area) local authorities should, on the representation of the Medical Officer of Health, have power to declare any area "a congested area," and thereafter to prohibit the demolition of houses or the erection of buildings other than dwelling-houses in those areas without a licence from the local authority.

The Garden City Movement, it is recommended, should be encouraged by State assistance in the early stages, such assistance to take the form of a loan secured as a first charge upon the land developed as a garden city.

It is proposed that some competent person or persons should at once be authorised to prepare a plan for the reconstruction of London and the surrounding districts, and that an enquiry be at once instituted into the nature, scope and functions of a new authority or combination of authorities to give statutory effect to such a plan.

The Report makes special reference to the difficulties and problems of Birmingham, Leeds, Liverpool and South Wales, and includes a valuable Appendix, by the Secretary to the Committee, Mr. Herbert Jennings, entitled "Facts concerning Densities," having reference to the County of London.

* "Unhealthy Areas Committee.—Second and Final Report." H.M. Stationery Office. 4*d.* net.

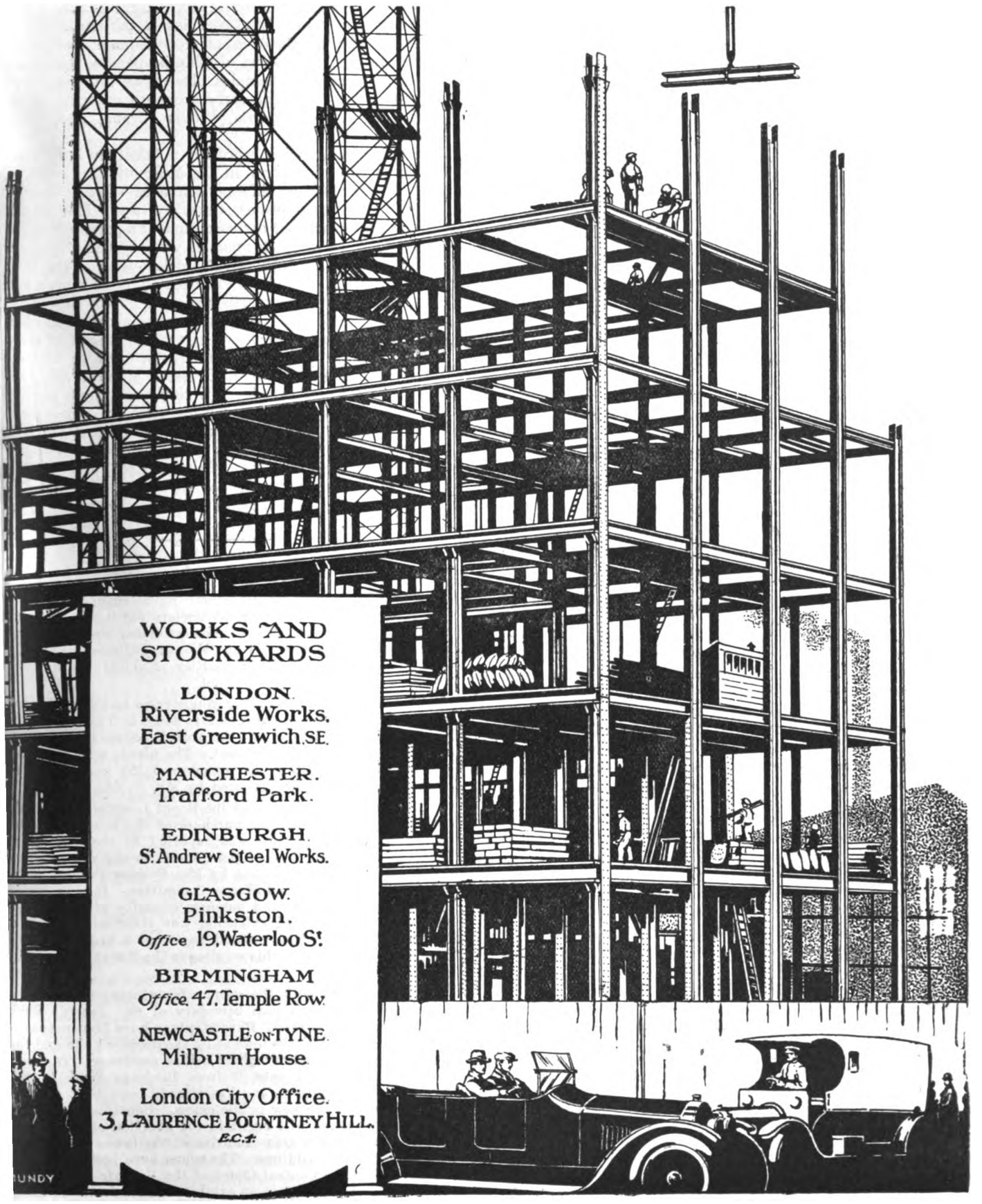
Marbolith Flooring as a Fire Resistant.

A remarkable instance of the fire-resisting qualities of Marbolith Flooring occurred recently. The works of Messrs. Kolynos Inc., of 51/42 Aldersgate Street, occupy three floors. In their manufactures they use a large quantity of various chemicals, which are kept in the basement. On the morning of July 8 the premises were discovered to be on fire, and in a few minutes the basement was one vast sheet of flame. The fire brigade was on the spot with its usual promptitude, but the whole building was threatened with destruction, as through the inflammable nature of the materials the fire had made extraordinary rapid progress. Fortunately, in July of last year, the Kolynos firm had instructed the Wilfley Co., Ltd., of Salisbury House, London Wall, E.C. 2, to lay their Marbolith flooring in the ground floor rooms, and though the entire basement was burnt out, and the joists and floor boards of the ground floor on which the Marbolith was superimposed were likewise destroyed, the fire was unable to make any impression on the Marbolith, for despite the intense heat the material was not even cracked, and the further progress of the fire was completely arrested. The flooring only gave way when the supporting timbers were burnt out, and through the weight of the machinery. One feature of importance in the fireproof qualities of Marbolith so abundantly demonstrated by the above incident is that when Marbolith floors are laid the owner of the building ought to be able to obtain a sensible reduction in insurance rates, for it is not too much to say that Marbolith provides a protection between each floor in practically the same manner as a fireproof door prevents the spread of fire in the passages of a building. A point of remarkable interest at the Kolynos fire is that though the staff were at work on the ground floor they were not aware of a fire being in progress in the basement until warned by the smoke coming up through the stairway at the end of the building.

Mr. William Bennett, of York Terrace, Cheltenham, Glos., retired architect, who died on May 15, left estate of the gross value of £14,837, with net personalty £14,150.—Mr. George Hyde, Brixton Road, London, builders' merchant, £20,415 gross, the net being £18,314. He died intestate.

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Future Housing and Private Enterprise.

THE National Federation of House Builders, whose headquarters are in Manchester, have issued the following statement on the Government's housing policy:—

"The decision of the Government to suspend the financial assistance which has been extended to local authorities in housing," they say, "was not unexpected by those connected with the trade; the method which was adopted of giving direct contracts for building houses in large numbers to contractors was an expensive and wasteful system, and under it the loss is very heavy and will probably be in excess of £1,000 on each house built; on the 176,000 houses undertaken the loss would thus amount to £176,000,000. This does not include costs of administration incurred by the Ministry of Health, the Housing Commissioners, and the local authorities, nor does it provide for road-making or legal and professional costs. These items will very materially increase the total loss, and it is reasonable to assume that the final actual loss to the taxpayer will not fall short of £200,000,000.

"The 176,000 houses, which are to be built by the Government contract and which will take several years to complete, will not reduce the housing shortage in any way. The normal requirements of the country are 88,250 houses per annum to cope with the increasing population, without making provision for the replacement of old and worn-out dwellings. The total efforts of the Government in this direction, therefore, will leave the shortage greater than ever and the problem as far from being solved as it was at the date of the Armistice. The loss could have been avoided by a wise policy of utilising the existing means of house building. The housing policy of the Government was an experiment in nationalisation which everyone with experience in housing felt would prove an expensive failure.

"The Government have announced that the subsidy scheme will also be withdrawn and that no grant will be paid on houses not begun before July 1 last; it was estimated by the Minister of Health last week that about 23,000 houses would be built under this scheme. On the strength of Government promises builders have purchased land and materials and have plans and schemes in hand for many thousands of houses. The effect of the new policy will be to hold up all house building for a time, and in face of the menace to the health and morals of the nation which the present condition of housing is causing, the National Federation of House Builders is of opinion that the country cannot afford to stand still and wait for better days in this matter.

"There is only one remedy for the present housing famine—the rent of the house must be adequate to pay for the cost of building, and until that condition is brought about some method of grant or assistance must be forthcoming. In view of the gradual fall in prices, the subsidy system, which the Government have withdrawn, was bringing economic housing within measurable distance and encouraging the house builder to speculate with some chance of success. The National Federation have laid proposals before the Ministry of Health asking for a grant to be given of sufficient amount to defray the difference between the value of the house and its estimated cost. This grant could be revised and reduced as the cost of building decreases until no subsidy is necessary. By this means the housing of the people could be efficiently dealt with and the most prolific source of unrest and danger to the nation would be gradually but surely overcome."

MR. R. N. J. SAIR, A.M.I.C.E., F.G.S., has been appointed town-planning assistant to the Cardiff Corporation at a salary of £385, rising by annual increments to £425. The following candidates were on the short list of five: Mr. H. P. Bishop, town-planning assistant, Cardiff; Mr. A. C. Holliday, assistant to Professor Abercrombie; Mr. J. S. Jennings, deputy-surveyor, Blyth, Northumberland; Mr. R. N. J. Sair, borough engineer's office, Neath; and Mr. R. Storer, town-planning assistant, Grimsby.

Wallpapers & Posters' Exhibition.

OWING to unforeseen circumstances, there has been some delay in the redecoration of the Sheepshanks Galleries of the Victoria and Albert Museum, and, rather than leave the Galleries unoccupied for a further space of time, it was decided to arrange a purely temporary exhibition of wallpapers and posters, which is now open to the public in Rooms 95-99.

Of special note among the wallpapers is a French set, of the Empire period, of twenty-five sheets, representing a continuous picture of a hunting scene, making a run of 44 ft. for the complete papering of a small room. This was given by Sir William Ingram, Bart., to whose generosity is also owing a particularly fine series of nine panels of a painted Chinese wallpaper. There are other examples of Chinese papers, and from these one passes to examples illustrating the history of British papers from the early sixteenth century to the designs of William Morris, Walter Crane, and other modern artists.

The posters, which represent a selection only from the large collections now in the Museum, are arranged to show the work of different countries—Great Britain, the United States, France, Germany, &c. The British Section contains a very early example of a poster designed by Walter Crane in 1888; notable work by the "Beggarstaff Brothers" and Aubrey Beardsley, who at the start set a very high standard for English poster art; and groups of work by living artists such as Frank Brangwyn and Spencer Bryse. A recent large acquisition has enabled the Museum to show a remarkable series of early French posters by well-known artists, such as Chéret, Steinlen, Toulouse-Lautree, Grasset, Mucha, &c. In every country posters played a very prominent part in the history of the War, and were used for every form of propaganda. British and French war posters are well represented, among the latter being famous works by Steinlen, Faivre, Poulbot, Willette, Roll, and others; while special interest attaches to chosen examples of German posters, which hold their own by sheer force and efficiency.

General.

THE Birmingham City Council have authorised their Education Committee to accept tenders for the erection of four semi-permanent schools. The estimated cost, exclusive of professional charges, is as follows: Billesley, £22,000; Pineapple Farm, £22,000; Saltley, £30,000; Erdington secondary, £25,000.

THE Birmingham Licensing Magistrates last week granted a licence for the erection of a picture house in Taunton Road, Sparkhill, on condition that the work is begun within three months to relieve unemployment. The plans, which include a crush lounge hall to accommodate 1,150 people and a theatre for 1,500, were prepared by Mr. C. Sharp-Smith.

AT the Council meeting of the Royal Institute of British Architects on July 18, the purchase of the perpetual lease of No. 10 Conduit Street was reported by the President, who called the attention of the Council to the valuable services rendered in this matter by Mr. Sydney Perks, Chairman of the Finance and House Committee. It was due to the energy, foresight, and business capacity of Mr. Perks that this much-needed extension was obtained at such a moderate price. The Council recorded a hearty vote of thanks to Mr. Perks for his services to the Royal Institute in the matter.

IN connection with the scheme for placing the Guards' Memorial on the Eastern boundary of St. James's Park facing the Horse Guards' Parade, plans have been prepared by H.M. Office of Works indicating the proposed site and the alteration to the roadway which will be necessary. The road improvement scheme extends from Birdcage Walk to the Mall, and the Southern end has already been dealt with in connection with the new public offices. Continuation to the Mall, as proposed, will result in the addition of about half an acre to the park area exclusive of the lawns in front of the Government buildings. The plans have been placed on exhibition in the Central Court of the Victoria and Albert Museum, and will remain on exhibition for a few weeks.

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The Logic of Children.

THE Building Guild, Ltd., have sent us a circular entitled "Future Forms of Guild Contracts." We read it once and failed to understand it. We read it twice and were lost still further in a fog of doubt. We then rested and read it a third time, making a few notes on salient points, and decided it could be best described under the heading above. In a way, the document may be described as being unworthy of any notice, but the crude Socialistic theories underlying it are common to a large class of literature which is doing much damage in our midst, and in that sense should be refuted.

We are told in the Foreword that "The lump-sum contract is less applicable to building and repair work than elsewhere. The difficulties, irritations, and dishonest practices that are inevitably associated with 'extras' renders the lump-sum contract futile or worse." Why should a lump-sum contract necessarily involve extras, and what dishonesty is there in charging for work which is specifically outside a contract?

Instead of the lump-sum contract, the Guild proposes what it calls a maximum-sum contract, beyond which the client has no liability. It is true that the Guild gives its customer the benefit of a saving of cost actually effected, but it may be pointed out that, under the sliding-scale adopted within recent years, the client of an ordinary contractor obtains the advantage of any fall in prices of labour and materials. What the difference between the two cases is would puzzle the ordinary man, who will probably look upon the "maximum price" as a "lump-sum price," and will be right in doing so.

We are told that the "basic price" of the Guild is founded on the conception that producer and consumer "have an equal responsibility for the industrial processes." Such a sentence means nothing unless it means that the man who spends money in building should be called on to pay for any mistakes made by the producer, since he has by the terms of the axiom an equal responsibility for industrial processes. We are told that the "credit required for the production of commodities is the joint responsibility of the producer and consumer." Applied to ordinary life, this, we take it, would mean that we had to partly finance or manage the business of any man with whom we had commercial transactions.

We are told that in the existing industrial system "finance based on profit takes priority over labour." This is obviously both absurd and false, because labour has to be paid and work completed before there is any profit at all, and when this has been done it is frequently found that an anticipated profit is replaced by a loss, which might often be put down, in the jargon of the new dispensation, to the profiteering of labour itself.

We are told that the Guild tenders on "the basis of cost; not commercial cost, which takes no account of wet time, or unemployment, or sickness, which is calculated merely upon the commodity valuation of labour at so much an hour, plus the cost of raw materials." Surely the whole point which arises out of this silly tangle of words is this: If the Building Guilds can, while insuring all their men against every evil inherent to life, yet do more and better building for £1,000 than the capitalist-builder offering none of these advantages can do, the Building Guilds will get all the work, and no one will grudge it to them. The position seems to be this—either the profits of the capitalist-builder are so large that, divided between the men of a Guild, they would secure a kingdom of heaven on earth for the worker, or else labour has been working dishonestly and badly out of spite for the capitalist-builder, while it works willingly and well for the Guild—not, we should say, from our knowledge of mankind, because the average man desires to do "public service," as the Guild alleges, but because, as is more likely, he believes he gets improved conditions by working for it.

A clear attempt to create prejudice is made by the suggestion that the contractor grinds down labour. He is not in a position to do so, as the rates paid are those agreed between the unions and the employers. Presumably, if the former thought that "continuous pay" and "wet time" were essential, they would stand out for them. Now there are two ways in which these payments can be made—the present one by paying men the highest rate possible for the time they are employed; the other, to pay at a lower rate, which will permit continuous pay to cover sickness and wet time. *Ex nihilo nihil fit* conveys a truth which seems to escape many, there is a limited amount of money to be expended in wages, and neither the Building Guilds nor the employers can give more. At the most, the guildsmen get a part of the 10 per cent. which the Guild receives over and above its "basic costs." If, under these circumstances, the guildsmen build better and more cheaply for the Guild than the contractor, it is because they work honestly in the one case and practise ca' canny in the other.

We now come to a delightful sentence, "to introduce any element of profiteering is to poison the relations between ourselves and our customers. It is important to notice in this connection that profit is not less profit and less immoral merely because it is not distributed as a dividend or disbursed for the general benefit of the community or industry. Five per cent. philanthropy is equally hateful, whether under Capitalist or Labour control." Apparently these simple and guileless guildsmen fail to see that there is but one basis on which employment is possible, and that presupposes a want and also a means of filling that want. If it costs a man a given sum to grow an acre of corn in labour, seed, and other expenses, he has no inducement to sell the corn he obtains for the exact amount he has paid. If, on the other hand, he charges more, the wicked element of profiteering is introduced at some wicked

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rate of interest. Supposing the normal wages of a building craftsman working for a capitalist-employer are £1 a day, and that the capitalist makes 10 per cent., or 2*s*. a day, by selling the work so produced, which helps to support the wicked and pernicious system of capitalism and to pay overhead charges, we have an example of the pernicious system now prevailing. But the Guild includes in its estimates 10 per cent. for service charges, which bear a remarkable resemblance to the capitalist's profit, though we know that, as they are a Guild's charges, they are used for purely philanthropic purposes! How wicked a world we live in is shown by the following paragraphs:

We must remember also, in this connection, that to fix a maximum price for labour is, from the Guild point of view, quite safe. Our commitments in that direction could run to millions of money without danger. There might be great danger in large commitments, either in lump-sum or maximum-sum contracts, if the Guild accepted large commitments in the supply of material. Sooner or later there will be a clash, and it is conceivable that the full capitalistic power might be concentrated upon squeezing the Guild by withholding pivotal supplies. At the moment we are obtaining our materials quite freely, and if it were merely a case of the interest of the merchants we could regard the future without anxiety. But behind the merchant is the manufacturer; and behind the manufacturer the banks and the whole financial organisation. It is, therefore, of first importance that no step should be taken by the Guild which might leave us at the mercy of our opponents. In this vital aspect of the problem the dangers that inhere in either the lump sum or the maximum sum contracts are completely absent from any form of Guild labour contract.

It will be for the Labour movement in general, and the Guild movement in particular, to bring into close co-operation all the trade unions that are concerned in the manufacture of building materials, or material required for other Guilds. It is only when we are strong enough to prevent the supply of materials to the master class, that we can safeguard the supply to all Guild organisations.

When we have finally decided to eliminate profits, capital, banks, and other vicious products of an effete civilisation, it is refreshing to know we can turn to the pure fount of the Building Guilds and be supplied with everything, including catchwords such as maximum-sum contract, pivotal supplies, basic costs.

We do not think it has occurred to the evil-minded capitalist, manufacturer, or merchant that they should withhold supplies from anyone willing and able to pay for them, but the capitalist-builder will note that it is the intention of the Guild to withhold supplies, and so starve him out, as soon as the Labour tyranny is effectively organised.

The Board of Architectural Education.

THE following Resolutions have been passed by the Board:—

Intermediate Examination Testimonies of Study.—Resolved to substitute the following "Testimonies of Study" to be submitted by candidates for the Intermediate Examination in lieu of the present Testimonies:—

1 and 2.—Two sheets showing the application of one or more of the orders of architecture to a building. A general drawing of the building to be given on one sheet with details on the second.

3, 4 and 5.—One sheet of details of classic ornament from the round, or one sheet of mediæval ornament—free-hand drawing from the round. Two sheets of measured drawings of an existing building, or portion of a building, to be selected by the candidate, with the plottings and sketches.

6, 7 and 8.—Three sheets of working drawings of a building of moderate dimensions showing clearly the construction of floors, roofs, joinery, &c. The general drawing to be drawn to the scale of 8 in. to 1 in. with ½ in., and full-size details.

The School at Rome.—Resolved to exempt the holder of the Rome Scholarship in Architecture from the final examination under the usual conditions at the conclusion of his three years' study abroad; and the holder of the Henry Jarvis Studentship at Rome after his two years' study abroad, provided that their work is approved by the Board.

Final Examination Testimonies of Study.—Resolved that designs prepared at the Royal Academy Ateliers, and also at the "recognised schools," may be submitted for approval by candidates for admission to the final examination in lieu of the same number of R.I.B.A. problems in design.

R.I.B.A. Examinations.

THE following candidates passed the recent Final and Special Examinations of the Royal Institute of British Architects:—

Mr. R. W. Ferguson, Mr. J. M. D. Henderson, Mr. L. W. Ingham, Mr. J. A. Kerr, Mr. C. M. Master, Mr. D. J. G. Plumley, Mr. F. I. Tellery, Mr. F. Wilkinson, Mr. J. Williamson.

The Ashpitel Prize (£10 in books) has been awarded to Mr. L. W. Ingham, and a mark of distinction has been awarded to Mr. F. I. Tellery for his thesis.

Twelve candidates failed to satisfy the Examiners, and have been relegated to their studies.

The following candidates passed the Special War Examination:—

Mr. E. H. Adams, Mr. E. J. Armstrong, Mr. H. G. Atkin-Berry, Mr. A. C. S. Auld, Mr. C. H. Bailey, Mr. C. Barber, Mr. R. R. Barnett, Mr. J. Batty, Mr. A. E. Batzer, Mr. W. C. Bickerton, Mr. J. Blackett, Mr. A. Blomfield, Mr. M. Botting, Mr. T. S. Bowes, Mr. K. A. Braden, G. S. Bridgman, Mr. G. L. Broadbent, Mr. K. H. Brown, Mr. L. J. Brown, Mr. G. A. Bryan, Mr. H. M. R. Burgess, Mr. C. G. Butler, Mr. F. G. M. Butlin, Mr. J. Campbell, Mr. C. S. Carter, Mr. H. B. Challen, Mr. E. U. Channon, Mr. E. S. Charlton, Mr. W. A. Cheers, Mr. F. A. Child, Mr. R. G. Clark, Mr. O. H. Collins, Mr. R. A. Cooksey, Mr. C. J. Crossman, Mr. T. S. Darbyshire, Mr. I. Davies, Mr. G. R. Dawbarn, Mr. H. A. Dawson, Mr. F. M. Dean, Mr. J. Donald, Mr. F. M. Drake, Mr. A. H. Durand, Mr. J. M. Easton, Mr. A. E. Eberlin, Mr. C. J. Eprile, Mr. G. H. Fawcett, Mr. J. H. Forshaw, Mr. E. Frear, Mr. J. A. Frew, Mr. G. A. Gale, Mr. C. R. Gallie, Mr. H. Gresswell, Mr. G. T. Harman, Mr. M. R. H. Harris, Mr. J. L. Harvey, Mr. W. F. Hedges, Mr. T. E. Heysham, Mr. O. Hill, Mr. N. Hinwood, Mr. P. T. Hiorns, Mr. H. E. Horth, Mr. H. W. Humphrey, Mr. S. Hunt, Mr. S. Hyde, Mr. R. Jackson, Mr. F. L. Johnson, Mr. H. Jones, Mr. H. A. J. Lamb, Mr. C. Leckenby, Mr. J. Logan, Mr. W. R. J. Mann, Mr. B. K. O. Mathews, Mr. P. V. E. Mauger, Mr. H. A. Mealand, Mr. J. A. Meikle, Mr. J. B. Mendham, Mr. G. A. Mitchell, Mr. K. D. P. Murray, Mr. C. W. C. Needham, Mr. L. Pickford, Mr. S. Pinfold, Mr. C. T. Pledge, Mr. D. S. Prosser, Mr. N. D. Quick, Mr. T. Ridge, Mr. F. G. Sharp, Mr. E. Sheppard, Mr. C. G. Skinner, Mr. W. Small, Mr. A. Snell, Mr. C. G. Soutar, Mr. C. H. Stableford, Mr. A Stocker, Mr. F. R. Streeter, Mr. C. Sunderland, Mr. M. N. Sykes, Mr. J. B. Symonds, Mr. W. J. Taylor, Mr. C. R. Towle, Mr. R. C. White, Mr. L. J. Williams, Mr. K. M. Winch, Mr. A. E. Wiseman, Mr. J. Yeats, Mr. C. J. M. Young, Mr. F. N. Young.

Sixteen candidates failed to satisfy the Examiners.

The following candidates have passed the Intermediate Examination held in London and Manchester and are eligible for registration as Students:—

Mr. H. W. Chester, Mr. E. H. Button, Mr. H. Conolly, Mr. C. F. M. Keay, Mr. C. C. G. Osborne, Mr. F. J. Lander, Mr. W. J. Werry, Mr. J. H. Parker, Mr. H. R. Steele, Mr. J. C. P. Cork, Mr. S. J. Kemp, M.M., Mr. E. Watson, Mr. J. A. Metcalfe, Mr. H. Fieldsend, Mr. F. H. Wrigley, Mr. R. G. Easdale.

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Illustrations.

DESIGN FOR A SEASIDE BUNGALOW IN THANET. ARTHUR T. BOLTON, F.S.A., Architect. Royal Academy Exhibition, 1921.

DESIGN FOR DEPARTMENTAL WAREHOUSE. Drawings submitted for the Post Diploma Course of the Aberdeen School of Architects. By JOSEPH ADDISON, A.R.I.B.A., Winner of the School £150 Travelling Scholarship.

'THORNHILL," ST. GEO RGE'S HILL, WEYBRIDGE: THE SURREY RESIDENCE OF LORD DUNMORE, V.C. KENNETH WOOD AND JOHN SARVIS, Architects.



INTERIOR, "THORNHILL," WEYBRIDGE.
MESSRS. KENNETH WOOD, A.R.I B.A., AND JOHN SARVIS, Licentiate R.I.B.A., Architects.

THIS house, which is owned by Lord Dunmore, V.C., is situated on one of the highest points on the estate, and amidst beautifully wooded surroundings. The house has a large drawing-room, morning-room, lounge hall and dining-room, and a special feature is made of the staircase and entrance hall with its marble flooring and oak work. In the greater part of the house oak has been used for all joinery and floors.

In the basement are the wine cellars, cold and game larders, butler's room, &c. The bedroom floors are arranged so that the principal bedrooms have bath and dressing-rooms attached. As this house possesses such a wonderful view from all points a sunk flat was arranged on the roof with a special staircase to give access thereto. From this flat well-known landmarks in the surrounding counties can be seen.

The reception rooms are decorated with plaster enrichments to ceiling beams, and the fireplaces are in Bath stone with brick and tile introduced. All the rooms on ground floor are panelled in oak. The sashes are steel with stone mullions, and in the case of the upper floors oak is used. In many of the rooms ornamental leaded lights are used in clear glass with extra wide coigns from designs of the architects.

Externally the material used in the 20-inch hollow walls is 2-inch bricks with tile lacings, and projecting cornice carrying ornamental cast-iron trough gutters. The mullions, dressings, &c., are in Bath stone. The tiles are hand-made, sandfaced.

The terrace on garden front is paved with randem Bargate stone, and the wall enclosing same is built of special bricks with tile lacings and features. The architects have carried out extensive additions in the way of retaining-wall, and terraces at edge of tennis lawns in a similar style.

The house has an elaborate system of central heating.

Résumé of accommodation:—

Basement.—Safe, wine cellar, butler's bedroom, cold and game larders, heating chambers, fuel, boots, &c.

Ground Floor.—Drawing-room, morning-room, lounge hall and staircase hall. Vestibule: dining-room, garden-room, pantry, lavatories, &c., kitchen and offices.

First Floor.—Eight bedrooms, two with dressing rooms, bath-rooms, &c., two other bath-rooms, sewing-room, linen-room, scullery, hanging cupboard, &c.

Second Floor.—Five bedrooms, maids' bath-room, store rooms, blanket and store linen rooms, boxes, &c.

The architects were Messrs. Kenneth Wood, A.R.I.B.A., John Sarvis, Licentiate R.I.B.A., architects, Old Bank Chambers, Woking, and the builders Messrs. W. G. Tarrant, Limited, of Byfleet, Surrey.

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London Art Galleries.

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In last week's issue I gave some account of the Summer Exhibition at the Grosvenor Galleries, where, besides those mentioned, the work of Muirhead Bone—who has seven paintings here—is to be noted, with the "Boys Fighting" of Anna Airy, a brilliant study of movement which might be inspired by the well-known classic marble of the Wrestlers, and where, lastly, even more than his "Good Samaritan," in some exceptionally clever still-life Vivian Forbes shows a technical command which makes him a force in our modern art.

I come this week to the Fine Art Society, which has also arrived at its "Summer Exhibition of Paintings and Water Colours by leading British Artists," and really provides some very satisfying fare for those who may be visiting London or kept there during the holiday season. Arthur Friedenson is here very fully represented with five paintings, among which I specially admired "On the Isle of Purbeck" and the "River and Church at Wareham," and to be compared with these in landscape work are the three paintings by Hughes-Stanton, R.A., of whose art the "Road through the Dunes" is a most felicitous example, while in both these artists we enjoy the clean, fresh colour. The same might be said of Arnesby Brown, whose "Gathering Clouds" here is a typical and delightful little painting, though not, of course, on the level of such creations as his "September Morning," as "The Estuary" or "May in the Marshes." I may mention here, incidentally, that in Italy—where our art is followed far more carefully and intelligently than many English people are aware—the art of Arnesby Brown is appreciated to-day, as well as that of Sir William Orpen or Frank Brangwyn.

This last artist has two paintings, both of merit, here, of which "Rest" is more decorative and monumental but "Making for the Harbour" is no less interesting. I have just mentioned at the Grosvenor the work of Anna Airy; and here, too, we find this versatile and accomplished artist in a brilliant flower-piece of "White Roses Triumphant." Scarcely less versatile was that artist whose loss we still deplore: for a recent writer in "The Studio," on the work of William Strang, R.A., has said of "The Love Song," "in such a subject Venetian colour harmony seems to have been the guiding principle." It is an attraction to this Summer Exhibition to include this poetic and almost Giorgionesque creation, which is far preferable, to my judgment, to the "Venus and Adonis" by the same artist in this year's Academy, and shows a moment of the happiest inspiration.

Of course, these summer displays tend to become to some extent a "rechauffé" of the past season; and I seem to recollect Archibald Barnes's "Rhododendrons," as well as some of Bertram Priestman's paintings here in a display some months earlier: in this Gallery Tom Mostyn is a welcome habitué, and gives us a figure, decoratively treated, in "Who is Sylvia?"; glowing autumnal tints in "The Castle," and one of his typical colour-harmonies in "The Old Seat." The next room is devoted to water colours; and here a well-chosen group of birds, beetles, and inmates of the sea, by E. J. Detmold, are a great attraction. These drawings are wonderful in their delicacy, their detail, and at the same time their strength of design. All are good, though I should pick out for special mention "The Cicada," "Seagull," "Barn Owl," and "Lobster," and the fine drawing of insect life. Beside these, in "Time of Harvest" Anna Airy shows a no less clever study of plums; and on the other side H. B. Brabazon has three water colours, a dark archway within Cairo being very effective. This is, in fact, a well-chosen selection of over ninety English water-colour artists, among whom Russell Flint, Cecil Hunt ("Grantchester") and William Walcot ("Venice") are represented.

In his gallery at Barbizon House, Henrietta Street, Mr. Croal Thomson has this month brought together an exhibition in which a leading feature is the work of the Barbizon School, including the art of Harpignies, Theodore Rousseau, Daubigny, Millet, and some good examples of Corot. Daumier is here also, and a fine scene of French peasant life, "Gathering Potatoes," by Bastien Lepage. This is a choice little collection of painters of merit.

S. B.

Art News of To-day.

We had occasion in a recent notice to mention Lely's fine portrait of Nell Gwynne at Stowe House, which was included in the sale of last month. To-day we hear that an interesting portrait by this artist has been just added to the National Gallery collection. Sir Peter Lely was of Dutch family, and was sent by his father to study painting in Haarlem: in 1641 he was taken to England by William, Prince of Orange, the son-in-law of Charles I. In December of that year the Court Painter, Van Dyck, died, and young Lely, a great admirer of the latter's art, succeeded him in his position at Court, and, after the Restoration, painted many of the beauties of the Court of Charles II. He has been hitherto represented in our Gallery by one painting in small dimensions. The fine portrait now acquired was painted about 1665, and has as its subject the Flemish alchemist, metaphysician and teacher of deaf mutes, Van Helmont.

This portrait, which was bought out of the Lewis Fund for the National Gallery at the recent sale of the Ragley pictures at Christie's, is now hanging in Room XXV. On the canvas is recorded the fact that Van Helmont embalmed the body of Anne, Lady Conway, for her husband to see it on his return from Ireland in 1679.

In view of the recent report on the value of classical studies, both at the Universities and in secondary education, the remarks of Professor Patrick Geddes may be worth referring to here, from the point of view that Hellenic study cannot be disconnected with art. Professor Geddes took the view, no doubt, with reference to the anthropomorphic element in Greek religion, that it was natural for men and women to create gods and goddesses. "These," he said at the Guild of Education, "were the types of perfect womanhood and manhood that they worshipped. To prepare for the more eugenic humanity of the future he believed that it was necessary for us to revert to the old types of beauty set before us by the Greeks. In the past Greek thought and learning had been the main uplift of our civilisation, and in the future development of life and mind the line of approach must be that of the Greeks." What is certain is that the direct influence of Hellenic culture, of thinkers such as Plato, of their greatest poets and creators of art, cannot be taken out of our national life without an irreparable loss; the indirect influence of such culture already absorbed is not the same in any way as the fresh fount.

In this connection it is interesting to hear that the City Art Museum of St. Louis has acquired a Greek marble bust of the fourth century B.C., which is of singular beauty of type, and in style seems to belong to the Praxitelean School. It represents the head of a young girl, and was found in the Island of Thasos. Another acquisition of the same Museum is an Italian bronze relief of the fifteenth century. The subject there represented is stated to be an ancestor of the famous Venetian General, the Condottiere Bartlommeo Colleoni, whose equestrian statue is one of the masterpieces of Renaissance art.

The Victoria and Albert Museum has acquired, for 1,460 guineas, at the Marquis of Anglesey's sale last week, a marble bust, believed to be that of Mr. Baker, courier to Charles I., who conveyed to Rome the triple portrait of the King by Van Dyck, for Bernini to model from it a bust.

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The Royal Exchange.

By A. J. Glasspool.

THE restoration of the bells to the Royal Exchange after their removal for re-casting has drawn public attention to that building. It is more than possible that many who hurry along Cornhill and its neighbourhood have never known that some of our most popular melodies are twice a day sounded forth from the belfry of this important structure.

The Gresham Committee with patriotic aspirations desire to please the ears of members of at least three of the nationalities of the British Isles. The Welsh are wondering why they are left out.

For twenty-five years the carillon machine with three barrels, has given forth in each three successive weeks English, Scotch, and Irish airs. These tunes every day of the week give us twenty-one well-known airs. These are calculated to calm the angry temper, to stimulate admiration for our particular part of the homeland.

Now an English, Scotch, and Irish air will be played every day.

It is appropriate at the present moment when our thoughts are directed to the heir to the throne, happily known as Prince Charming, that the first air on the list should be "God bless the Prince of Wales."

The purest of emotions are stirred by the words of Lyte's beautiful hymn "Abide with Me."

To see the grandeur of the City's buildings one should walk through the chief streets on a sunshiny Sunday morning. The beauty of the scene is, however, much disturbed by the clanging of church bells, cracked, discordant, out of harmony with each other.

"Sweet bells jangled, out of tune and harsh." The renovated bells of the Royal Exchange will never stir the feelings as the bells of Antwerp and Bruges, but every observing citizen will be thankful for a little more harmony.

The Royal Exchange occupies part of the most magnificent business site in Europe, completed as it is by the Bank of England and the Mansion House.

The antiquary will remember that it was here the Romans had their citadel; here, in the district now known as Cornhill and Lombard Street, were the Roman Barracks, the Courts of Justice, Baths, etc. Near at hand by the side of the river embankment, wharves came into existence with ports at Billingsgate and Dowgate. On this site the heart of the British Empire now beats.

The era of the first Royal Exchange beheld not only a great intellectual outburst, but also the growing power of England's commercial enterprise. When Queen Elizabeth rode to its opening, the decorated streets, the glorious white horse on which she rode, were emblems of that trade aspiration which necessitated a building where merchants from all parts of the world could meet and transact business. The idea of a Bourse or Exchange was not originated by Sir Thomas Gresham, but by his father, Sir Richard Gresham and Aldermen of the City of London, and subsequently Lord Mayor. In the year 1537, when he was the City's King, having been much impressed by the Bourse he had seen at Antwerp, he suggested to Thomas Cromwell, the lord privy seal, a design for such a building in London. He undertook to raise half of the £2,000 required.

A certain brother Alderman, Sir George Monoux, of "no gentyll nature," was the owner of suitable property in Lombard Street, but was loth to part with it without great profit. Letters from Henry VIII. to this close-fisted citizen ameliorated his greed, and he expressed himself willing to dispose of the site.

No serious action was taken until Sir Thomas Gresham in January 1564 made an offer to the Court of Aldermen at his own cost to provide "a comely Bourse for merchants to assemble upon, so that the City at their charges, will provide and appoint a mete and apt place for the same."

Sir Thomas was the Sovereign's commercial representative at Antwerp; he was also Ambassador at Brussels.

He was stimulated to action by his agent at Antwerp, a certain Richard Clough, who, in 1561, wrote to him from Antwerp, expressing his surprise that London was so far behind continental cities. Dr. Reginald Sharpe, who was Records Clerk to the Corporation of London, in his "London and the Kingdom," gives us an interesting extract from his letter.

"Consideryng what a sittey London ys, and that in so many yeres they have nott founde the menes to make a bourse! but must walke in the raine when ytt raineth, more lyker pedlers then marchants; and in thys countrie, and all other, there is no kynde of pepell that have occasion to meete, butt they have a plase meete for that pourpose."

The suggestion was considered of such urgency and importance that the very next Sunday at eight o'clock in the morning at St. Paul's Cathedral Aldermen and Liverymen met to consider the matter.

Eight houses were purchased, the ground cleared, and the foundation-stone laid in eighteen months. In less than three years, in 1569 the building was complete. Gresham found his architect in Henryke, a Fleming; he brought the stone, glass, and slate from Antwerp. The workmen also came from the same place.

This excited opposition in the London mechanics. The arms of Gresham on the building were defaced; an officer was sent to see that no "misorder" be done to any of the artificers.

The Exchange, like the Bourse at Antwerp, had its piazza, its open court, and its one hundred shops above the piazza, known as the "pawn" or gallery.

On the Cornhill front was a lofty bell tower, and from the summit the bell called the merchants to their bargains at midday and at six in the evening. On the north side was a lofty column, bearing the grasshopper, the crest of Sir Thomas Gresham.

The cosmopolitan character of the building was shown by the fact that the inscription attributing the building to Gresham was put up in French, Dutch, Latin, and English.

At first there was a great difficulty in letting the shops. Gresham was fearful that Queen Elizabeth should witness shops without goods. As a keen man of business he tried to remedy this evil. Mr. Deputy White tells us in his "History of the Three Royal Exchanges," that ten days before the Queen's visit he "went round among the few shopkeepers then present and entreated them that "they would furnish and adorn with wares and waxlights as many shopps as either they could or would, and that they should have all those so furnished, rent free for that year, which otherwise should have been 40*s*. a shoppe by the yeare."

The Queen's visit took place on January 23, 1571; the Heralds proclaimed the building the Royal Exchange. During the Commonwealth the building was known as the Great Exchange.

An old record gives an idea of the business carried on in the pawn. "All shoppes were well furnished according to that time, for there the Milliners and Haberdashers sold mouse trappes, bird cages, shaving hornes, lanhornes, etc. There were also those that kept shoppes in the upper pawne, armorers that sold both new and old armour, apothecaries, booksellers, goldsmiths, glasssellers, unto which place many forraine princes daily send to be best served."

This seems an amusing collection of goods. Pepys also informs us that he visited the Exchange and bought his wife "a payre of embroydered and six payre of plain white gloves. I laid out 40*s*. upon her."

For ninety-seven years the Royal Exchange was the merchants' place of meeting; the Great Fire came and razed it to the ground.

The second Royal Exchange was built very much after the pattern of its predecessor. Charles II. took a deep interest in its construction. The King, his brother,

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the Duke of York, and Prince Rupert on different occasions laid foundation-stones. Caius Gabriel Cibber, Rysbrach, and Wilton adorned the building with statues of Kings and Queens. The bells now appeared, playing different tunes every day of the week, beginning on Sunday with the 104th Psalm, and ending on Saturday with "The First Guards' March."

Like the first Royal Exchange, this successor was very imperfectly constructed. In 1767, when serious efforts were made to put matters right, it had been shored up for years. Fire again levelled the building; the 10th January, 1838, the day of the fire, was so severely cold that hot water had to be provided to thaw the engine and hose.

It is remarkable that as in the first fire the statue of Gresham alone was saved from destruction. The bells, however, were prophetic, for during the fire they were playing the air "There's nae luck about the hoose."

The third Royal Exchange was a vast improvement on its predecessors. Larger in its dimensions, more substantial in its construction; its noble portico of eight Corinthian columns, with its appropriate carving by Westmacott, adds greatly to the adornment of this part of the City of London. This work is very appropriate to the building. On the right we see the Lord Mayor and the municipal authorities, a Hindoo, an Arab, a Greek, and a Turk. On the left, merchants of England, a Chinese, a Persian, a negro, etc. It was Prince Albert who laid the foundation-stone and suggested that a religious motto should adorn the stone in the centre of the tympanum. Dean Milman, of St. Paul's, suggested the expressive words, "The earth is the Lord's and the fulness thereof."

The Act of 1839 relative to the building of a new Exchange provided for a Government grant of £50,000 towards the site. This led to a prolonged and serious dispute between the Gresham Trustees and the Lords of the Treasury.

The Government wanted to be consulted respecting the plans and estimates for the building itself as well as for the ground plan. The trustees, supported by the Recorder and the Common-Serjeant, protested that the Act only gave the Lords of the Treasury a voice in the arrangement of the ground plan. After much delay the Trustees gained the day. To carry out the plans there were fifty-eight claims for compensation; many of these were most exorbitant. The claim for 87 Cornhill was £7,402, the amount granted was only £1,653; for the house next door £5,650 was claimed, and £1,282 given.

The digging of the foundations produced evidences of the Roman occupation of this site. Coins of the Emperor Vespasian and Domitian came to light together with copper and wood styles for writing on waxen tablets, Samian ware, a strigil or flesh-scraper used in the Roman Baths, with other articles now preserved in the Guildhall Museum.

When the foundation-stone (a block of granite of four tons) was laid by Prince Albert on January 17, 1843, not only the usual bottle with coins was placed in the well, but also a zinc plate with an inscription in laudation of Gresham, and a history of the two previous buildings.

Queen Victoria opened the Exchange in 1844. Mr. Deputy Snowden kept the event in memory by his gift of a painting on one of the panels.

The paintings which now adorn the Royal Exchange panels are not really frescoes, they are painted on canvas and then affixed to the walls. The subjects of the pictures are associated with important events in the history of the City, and when all are completed they will form a historical gallery in which young and old may revel.

THE Nottingham and Derby Architectural Society joined with the Leicester and Leicestershire Society of Architects to arrange a summer excursion on the 23rd ult. The two societies united at Derby, and the party, which numbered over seventy, visited Ashbourne Church and almhouses, Norbury Church and manor house, and Wootton Lodge.

Correspondence.

St. Stephen's, Walbrook.

To the Editor of THE ARCHITECT.

SIR,—The abnormal heat of the past few weeks has produced many curious results, and amongst them it has been found that the lead on the dome of St. Stephen's Church, Walbrook, has crept and fallen to an extent of over 18 in.

This church is the masterpiece of Wren, and the model for St. Paul's dome, and its beauties are well known to all in the City who pass the Mansion House.

The dome is being swathed in tarpaulin to keep out the weather, but for which the first heavy shower would bring down the enrichments of the interior of the dome, and the Rector and Churchwardens find that to preserve their church they must obtain somewhere about £1,350.

It is to be hoped that the many hundreds who frequent its crowded Organ Recitals in the week days, together with all lovers of the City, may give some assistance.

The amount at present available is only about £300.—Yours, &c., CUTHBERT LAKE, Churchwarden.

St. Stephen's Vestry, Walbrook, E.C. 4.

Fire at Ripolin Premises.

To the Editor of THE ARCHITECT.

SIR,—You have no doubt heard that our premises at 22 and 23 Little Portland Street, W., were entirely destroyed by fire on the 21st ult. We are glad to inform you that we have found suitable new premises at 3 to 9 Drury Lane, London, where our offices and warehouses will be established for the present. We are in a position to deal with all orders, and shall be glad if you will insert a statement to this effect, together with our new address, in your next issue.—Yours, &c., RIPOLIN, LTD.

3 9 Drury Lane, W.C.

Bankrupt Boroughs and the Rent Restriction Bill.

To the Editor of THE ARCHITECT.

SIR,—The financial difficulties in which not only London boroughs, but local authorities all over the country, find themselves, are to a great extent due to the Rent Restriction Bill.

There is no doubt that a comparatively small section of the community would have had difficulty in paying a post-war economic rent in addition to rates, but this is no justification for wholesale rent restriction.

The cost of local administration has gone up like everything else, and rates, being based on rent, it is obvious that the authorities must either raise assessments or increase the rates. The Bill prevented rents going up to an economic level, so local authorities had no alternative but to raise the rates. This defeats the object of the Bill if it were intended to protect the poorer class of tenant, who merely pays extra rates in place of rent.

On the other hand, the majority are quite able to pay fair rents and rates in proportion to any other costs of living, and must ultimately do so.

The Rent Restriction Bill will be a fatal obstacle to building as long as it remains law, and with the obsolete system of local taxation will insure the final bankruptcy of local administration.

With the burden of the rates, the Rent Restriction Act, the housing scheme, and similar examples of legislative lunacy to cripple the building trade, it is hardly to be wondered at that men will not risk having anything to do with it, either as employers or employed.—Yours, &c.,

E. G. HOLTOM, F.R.I.B.A., M.S.A.

Holt, Norfolk,
August 1, 1921.

THE Glasgow Corporation at their meeting on the 28th ult. remitted for the consideration of three committees a renewal of the proposal to remove the Tolbooth Steeple from its present site at the Cross of Glasgow. The City Improvements Committee had made the following recommendations, viz.: That the resolution of the Corporation of February 20, 1919, viz., "That the Tolbooth Steeple be maintained by the Corporation as in the scheme prepared by Mr. Keppie for the reconstruction of the building at the corner of Trongate and High Street, adopted by the Corporation on December 10, 1914," be rescinded; and that, in consequence of the obstruction to the traffic in High Street caused by the Tolbooth Steeple, the said steeple be removed from its present site.

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National Federation of Building Trades Employers.

The eighty-seventh half-yearly meeting of the National Federation of Building Trades Employers, which took place last week at Sheffield, was a happy combination of business and pleasure, and hearty congratulations are to be offered to the Reception Committee, composed of the officers of the Yorkshire Federation and the Sheffield, Rotherham and District Association for the excellent arrangements made for the comfort and convenience of the delegates and their ladies. The meetings extended over three days—Tuesday, Wednesday, and Thursday. On the opening day the private meeting of the Executive Council was held at the Royal Victoria Station Hotel, Sheffield; and on adjourning the members were entertained to lunch under the Presidency of Alderman W. Birch, J.P., President of the Yorkshire Federation. In the evening the same company were the guests of the Sheffield Association at dinner. The general meeting was held on Wednesday, and was attended by about 200 delegates, and here a large amount of important business was got through. On the afternoon of Wednesday the visitors were received at the Town Hall. The evening was given over to a reception at the Cutlers' Hall; the hosts being the Council of the Yorkshire Federation. Advantage was taken of the occasion to make two presentations to Mr. A. J. Forsdike, F.I.O.B., President of the National Federation, and Mrs. Forsdike. The first of these was a silver epergne, which had been subscribed for by the members of the Sheffield Association "In recognition of Mr. Forsdike's invaluable services to the building trade, and in commemoration of his year of office as National President." The presentation from the Yorkshire Federation took the shape of a picture in colour of Mr. Forsdike. On the concluding day the delegates and their wives were taken on an extensive motor tour through Derbyshire, luncheon being served en route at the Grand Hotel and Hydro, Barlow.

The Dinner.

Mr. E. H. Banks (President of the Sheffield Association) presided at the dinner to the Executive Council and their ladies, the Lord Mayor of Sheffield being among the guests.

Responding to the toast of "The National Federation" proposed by the Chairman, Mr. A. J. Forsdike (Sheffield) said that the work of the Federation, which had been carried on for forty-three years, had become a task that had to be reckoned with. During his year of office a great deal had been accomplished, and a great deal had been left undone. With regard to the national programme, and particularly the housing schemes of the country, he would like to say that they, as builders of the country, were disappointed with the progress of the housing of the working classes. They realised that the cost was an entirely prohibitive one. It had been said by some members of the community that the builders of the country had been profiteering in the building of houses. Some months ago the Ministry of Health asked the National Federation if they would be prepared to help to form a committee of inquiry into the cost of the housing of the country, and they gladly assented to assist the Ministry. After several months of inquiry, irrespective of what had been said in the outside world, not one single instance were they able to point out of any builder in the country who had been profiteering. Everything cost more than it ought to do. They believed the best thing that could happen to the country to-day was that the housing schemes had been cut down. He thought that if the Government got out of the housing business the better for the community. If they could get the cost down—not to anything like pre-war level; they did not expect that—but down to an economic level, he believed the members of the Federation who had provided houses for the working classes to the extent of 95 per cent. would come back into their own, and continue to do so. Some months ago the Wages and Conditions Board was formed by which all matters appertaining to wages were to be settled on a national basis. While the members of the Board did not wish to take too much credit upon themselves, yet by joint operations of the Board they had been able to make a good start in the reduction of costs so far as wages were concerned. They had instituted a reduction of cost on a fair scale without causing any stoppage in the industry, and they believed that so long as they could maintain the relationship that existed at present between employers and operatives, the National Federation was doing very useful work.

Councillor S. Easten, O.B.E., J.P., gave the toast of "The City and Trade of Sheffield," and in the course of his speech remarked that the time had gone by when it was thought right that the workman should be content with the crumbs that fell from the rich man's table. The building trade might take credit among all the other trades for having acted upon that doctrine and for having come into relations with their operatives which were not usual among a large number of employers in the country. Proceeding to refer to the scheme for taking ex-Service men into the industry, Mr. Easten said that the men in certain sections of the industry had got a monopoly position. There were less than a half the number of men in the crafts that were required, with the result that the other sections of industry were being strangled. Those men were taking an unfair advantage of the employers and of the community. What the builders were hoping to do under the ex-Service men's scheme was to break that monopoly which ought never to have been allowed to grow up.

The General Meeting.

The general meeting on July 27 was presided over by Mr. A. J. Forsdike, F.I.O.B. (Sheffield). Before the business was proceeded with, the Lord Mayor of Sheffield gave the delegates a hearty welcome to the City.

The Louth Disaster.

Mr. H. Thompson (Louth) proposed a vote of thanks to the National Federation for the assistance given to the builders of Louth and District who suffered in connection with the recent cloud burst in the town. Something like £5,000 had, he said, been collected, and the Federation by the way in which it had come to the rescue had removed carking care from many hard-working men who otherwise would have had to face the next ten years with undoubted anxiety. They had had a couple of photos framed of pictures of the flood and two albums, which he asked the National Federation to accept, to be kept at the office as a permanent record of the disaster and of the generous way in which they had helped those who had suffered.

Mr. F. G. Hodges (Burton-on-Trent) seconded the resolution, and it was carried.

Ex-Service Men.

The most important topic debated was that of the attitude of the Federation towards the Government scheme for admitting unemployed ex-Service men into the industry.

Mr. A. G. White (the Secretary) reported that at the meeting the previous day of the Executive Council the following resolution was passed on the subject: "That this meeting regrets that circumstances have prevented the success of the ex-Service men's scheme, but determine to proceed forthwith to put into operation the arrangements made, and where any section of employers in the building trade are not working in accordance with the decision of the National Federation, inquiry be instituted and report made to the administrative committee to determine what action shall be taken."

Mr. E. J. Brown (London), in proposing the adoption of the resolution, said he regarded that as the most important matter that they had to consider. London was bitterly disappointed that builders in other parts of the country had, practically speaking, done nothing to fulfil the pledges which they gave at the ballot which was taken on that subject. They were told, and they realised, that there were very great difficulties in the way of taking those men in, because of the cut that had been made

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in the housing scheme by the Government, and also owing to the effects of the coal strike. He appealed to the meeting to brush all these difficulties aside. If only every other member of the Federation took on one man under the ex-Service men's scheme they would be home with it, and they, the Government, or the country, or, indeed, anyone, would not be able to say that they had not fulfilled their pledges. The Government had pledged itself up to the hilt that no more contracts should be given out by them to anybody who was not engaged under the scheme, and the stipulation would be put in all future contracts. Some of their members in London had as many as eight, and one had got ten, such men at work for him. In the London Association they had passed a resolution that every one of their members who could should take one or more of the ex-Service men. The result had been that they had allotted about 140 men in London. They could allot many more the moment the National Federation said "We are behind you in London, and if you are attacked the National Federation will fulfil its pledge and come to your support, even by way of asking for a national lock-out." The moment they put the ex-Service men on to learn plastering the trouble was going to begin. The bricklayers had taken it very well indeed, and were now teaching the men. He felt confident that if it was known that the Federation had made up its mind that the scheme was to go through that the plasterers themselves would act in the same way sooner or later as the bricklayers had. In London they were willing to start those men to-morrow, whether the operatives liked it or not. Was the country going to be at their backs, or were they not? If they were, then London would take the bull by the horns, and, if necessary, start the trouble. They hoped there would be no trouble, but they did not want to be the only part of the country that was shot at.

Councillor S. Easten, J.P. (Newcastle-on-Tyne), said that if they carried the resolution they were committing themselves to the most important thing that they had ever committed themselves to as a Federation. The position to-day was that the building industry was being strangled because of the restriction in the number of plasterers and in output. Even if the country had unlimited millions they could not get the houses completed, as all over the place they had houses unfinished, by reason of the fact that they had not a sufficient number of plasterers ready to complete them. They also had a shortage of bricklayers. The only way by which they could get more men into the industry was by taking up the scheme whole-heartedly, and even from a selfish point of view it would pay them to do so.

Mr. T. Howarth (Rochdale) said that while they had every sympathy with the scheme in the North-Western area, they were unable to take it up as they would like, because of the attitude of the master plasterers.

Mr. W. Cooke (Preston) remarked that in his town it was an instruction to the working plasterers that if any men were brought on to the job as trainee plasterers they immediately ceased work. That was the trouble. Many of the builders there only employed a few men, and it was a very serious thing to them to have their little business stopped.

At this point the Secretary read the following letter, which he had received from Sir Montagu Barlow, of the Ministry of Labour, dealing with the scheme:—

"Dear Mr. White,—In reply to your letter of July 19, with regard to the ex-Service men's scheme, I saw Mr. R. B. Chessum on the 21st instant. Mr. E. J. Brown was also present. In view of the half-yearly meetings of the Federation, to be held in Sheffield next week, the Minister and I took the opportunity of discussing the whole position of the scheme with Mr. Chessum and Mr. Brown. You will recollect that when I last discussed the matter, on June 29, with a deputation from the Administrative Committee, it was agreed that, the coal dispute having been settled, every effort should be made by the Federation during the weeks that have now elapsed to increase the number of ex-Service men engaged under the scheme, and to complete the machinery of District Committees. I regret that the results appear to be quite inappreciable. Only very few additional Committees seem to have been formed, and the number of ex-Service men reported as accepted under the scheme by private employers is about 124 out of 21,000, or little more than ½ per cent. of the applications received. I would refer your Federation to the pledges given to the Prime Minister at the Conferences in Downing Street, when the scheme was initiated, and would point out that these pledges were confirmed individually by every employer who voted to support the scheme. In view of this, it is lamentable that the 21,000 ex-Service men who have asked for employment under the scheme on the strength of these promises should have met with so little response from employers. I ask the Federation accordingly to take the opportunity afforded by the Sheffield meetings to review seriously the position of their members in relation to the obligation which they have assumed towards these unemployed ex-Service men. With regard to my conference with the deputation of the National Association of Master Plasterers on the 20th inst., I enclose a copy of the letter which I received from the Association. In explanation of their attitude, they stated to me that they cannot proceed with the matter on account of (1) the hostile attitude of the Operative Plasterer's Union, and (2) the absence of any real co-operation in the scheme by the members of the National Federation of Building Trades Employers. I shall be glad to receive a reply from you after the Federation have considered these grave considerations which arise out of the pledges that have been given, and to know what steps they are prepared to take. In addition, if the Federation have any proposals to make for overcoming the particular difficulty of training plasterers, either by way of establishing some training centre in the London district as suggested by the London Master Builders' Association or otherwise, I shall be quite prepared to consider the matter."

Mr. R. B. Chessum (London), in a vigorous speech, said he could not believe that the builders of the country were not going to fulfil the pledge they made at the ballot, that they would put the scheme into execution.

Mr. S. S. Smethurst (Oldham) suggested that the Executive Council should go straight to the operative leaders, who had adopted a policy of passive resistance, and tell them that unless they agreed to work the scheme they would begin the fight at once.

Mr. Easten said he could assure Mr. Smethurst that they had not overlooked his suggestion. He had a personal talk of two hours with some of the men's leaders, and he pointed out to them that they were going on with the scheme whether they liked it or not. In the same breath the men's leaders had sent out instructions that the men were not to help any trainees they were also told that on no account were they to "down tools."

Mr. H. T. Holloway (London), speaking in support of the resolution, after stating that his firm had more ex-Service men under the scheme, and three or four times as many trainees as any other builder in the country, said if possible he would like to see every employer who did not do his own plastering start a gang for the express purpose of starting that scheme. He made an earnest appeal to the trade throughout the country to take up the scheme in a businesslike way. Start their district committees—find out how many men they had in their employ in the plastering and bricklaying trades, and allocate the men in proportion, say, one in five.

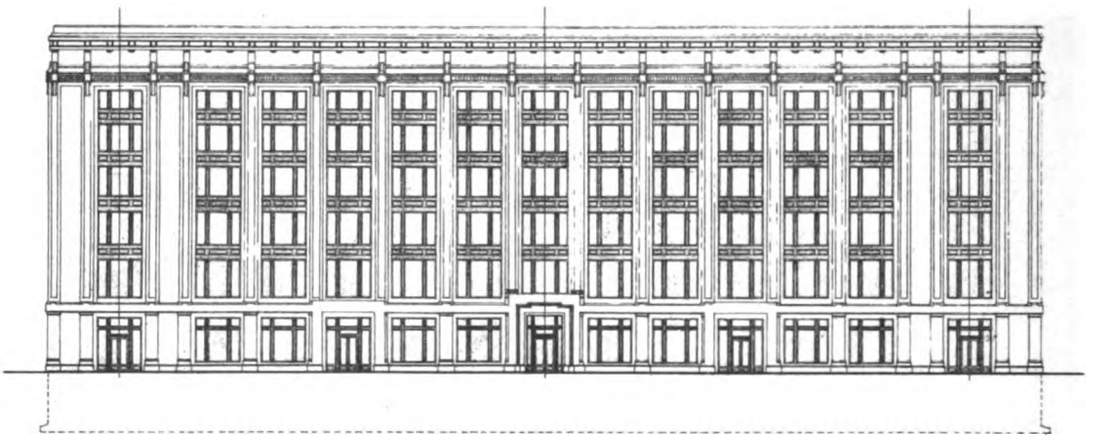
The President said that they wanted those district committees to be set up in every region. It would be a good thing if they all tried to emulate the example set by London, and Sheffield was trying to do that.

Mr. Brown (London) said he would like to ask if the Federation was prepared to pledge itself to support any section, whether it was London or anywhere else, absolutely up to the hilt should trouble rise. (Loud cries of "Yes.") That satisfied him; London would go ahead,

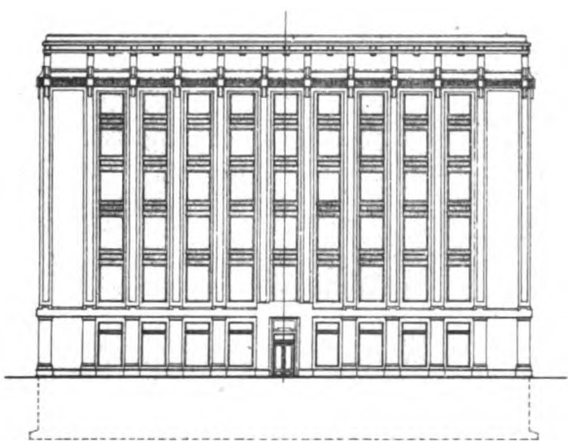
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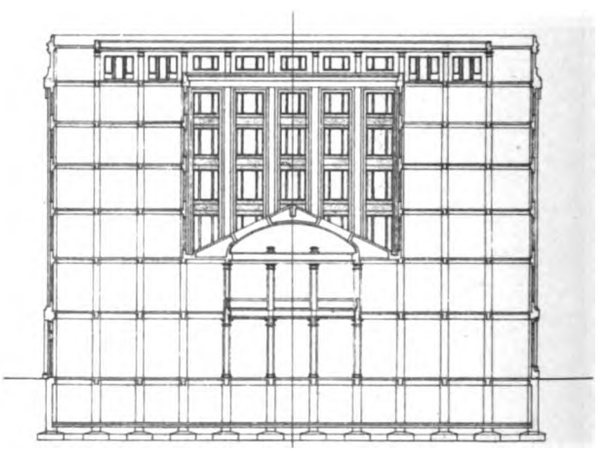
DESIGN FOR A DEPARTMENTAL WAREHOUSE.



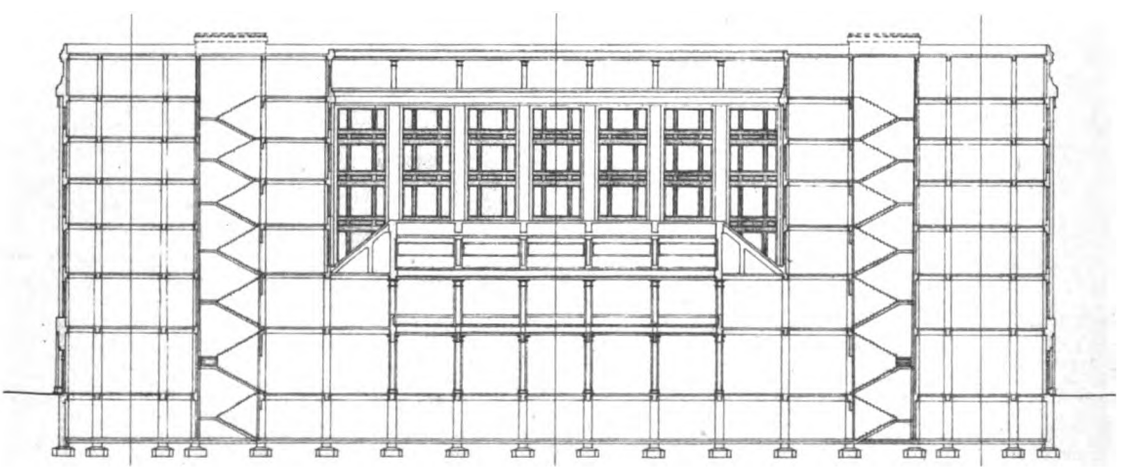
FRONT · ELEVATION.



SIDE · ELEVATION



CROSS · SECTION



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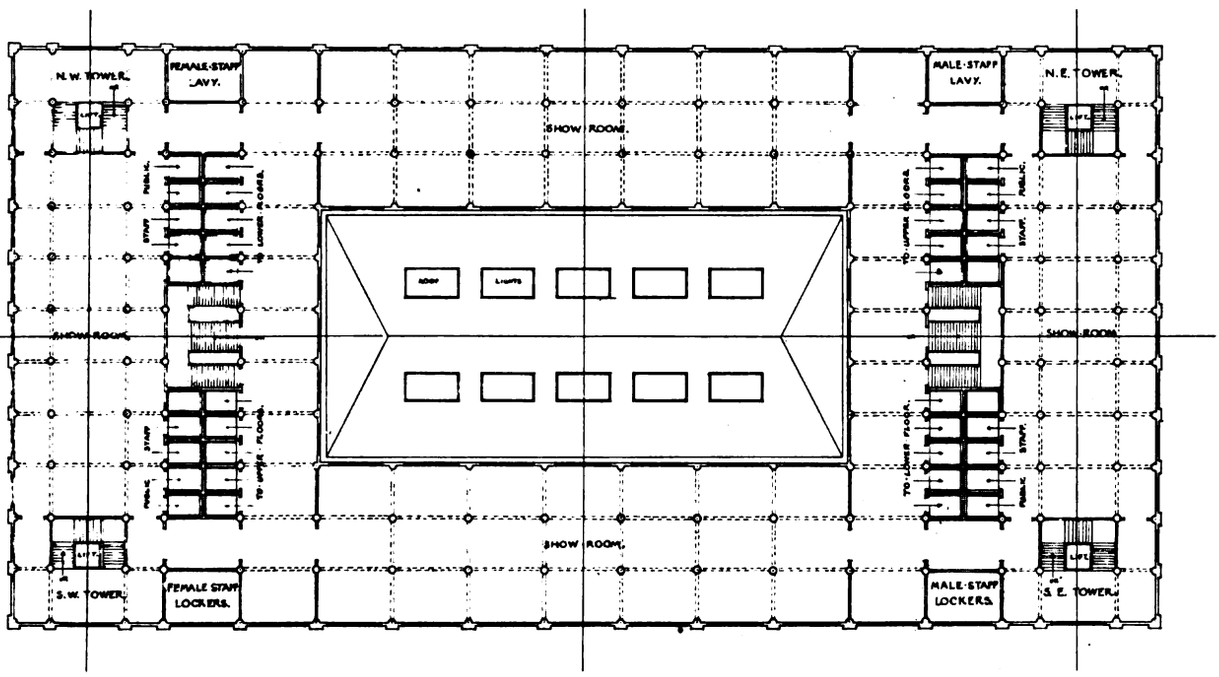
DESIGN FOR DEPARTMENTAL WAREHOUSE.

DRAWINGS SUBMITTED FOR THE POST DIPLOMA COURSE OF THE ABERDEEN SCHOOL OF ARCHITECTS

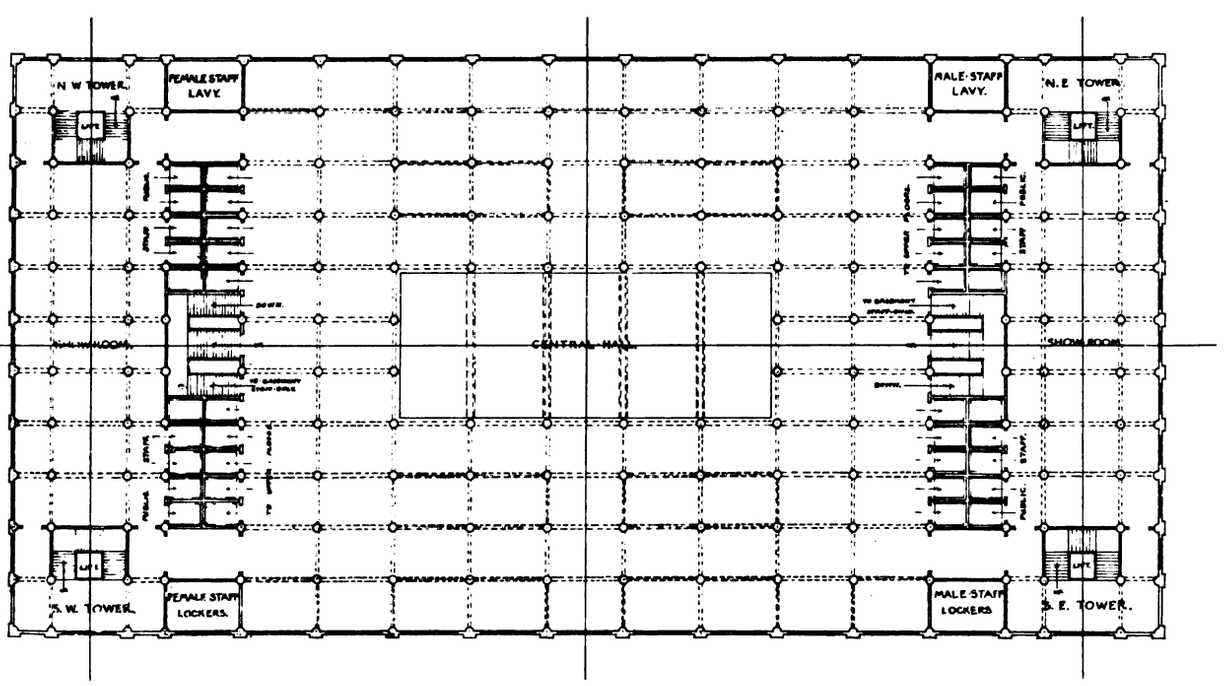
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DESIGN FOR A DEPARTMENTAL WAREHOUSE.



TYPICAL UPPER FLOOR PLAN.



GROUND FLOOR PLAN.

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DESIGN FOR DEPARTMENTAL WAREHOUSE.

DRAWINGS SUBMITTED FOR THE POST DIPLOMA COURSE OF THE ABERDEEN SCHOOL OF ARCHITECTS

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NORTH ELEVATION.



FRONT EN



VIEW FROM THE S.E.

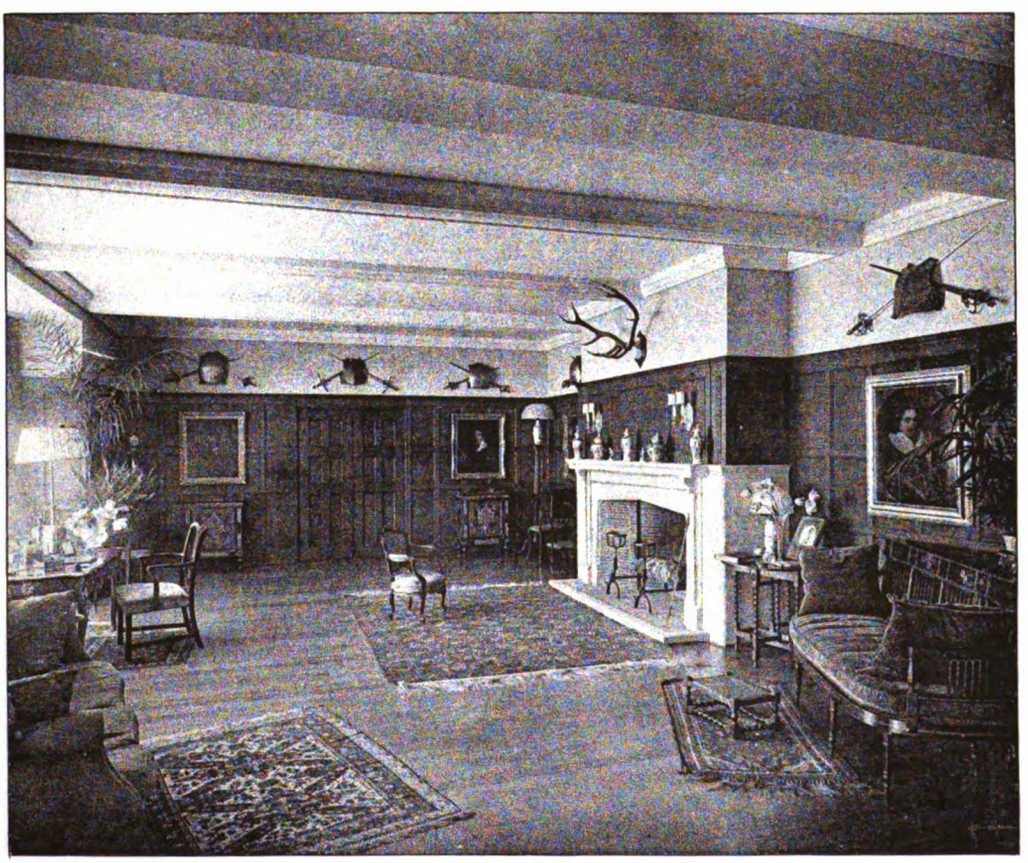
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SOUTH ELEVATION.



CE.



LOUNGE HALL.

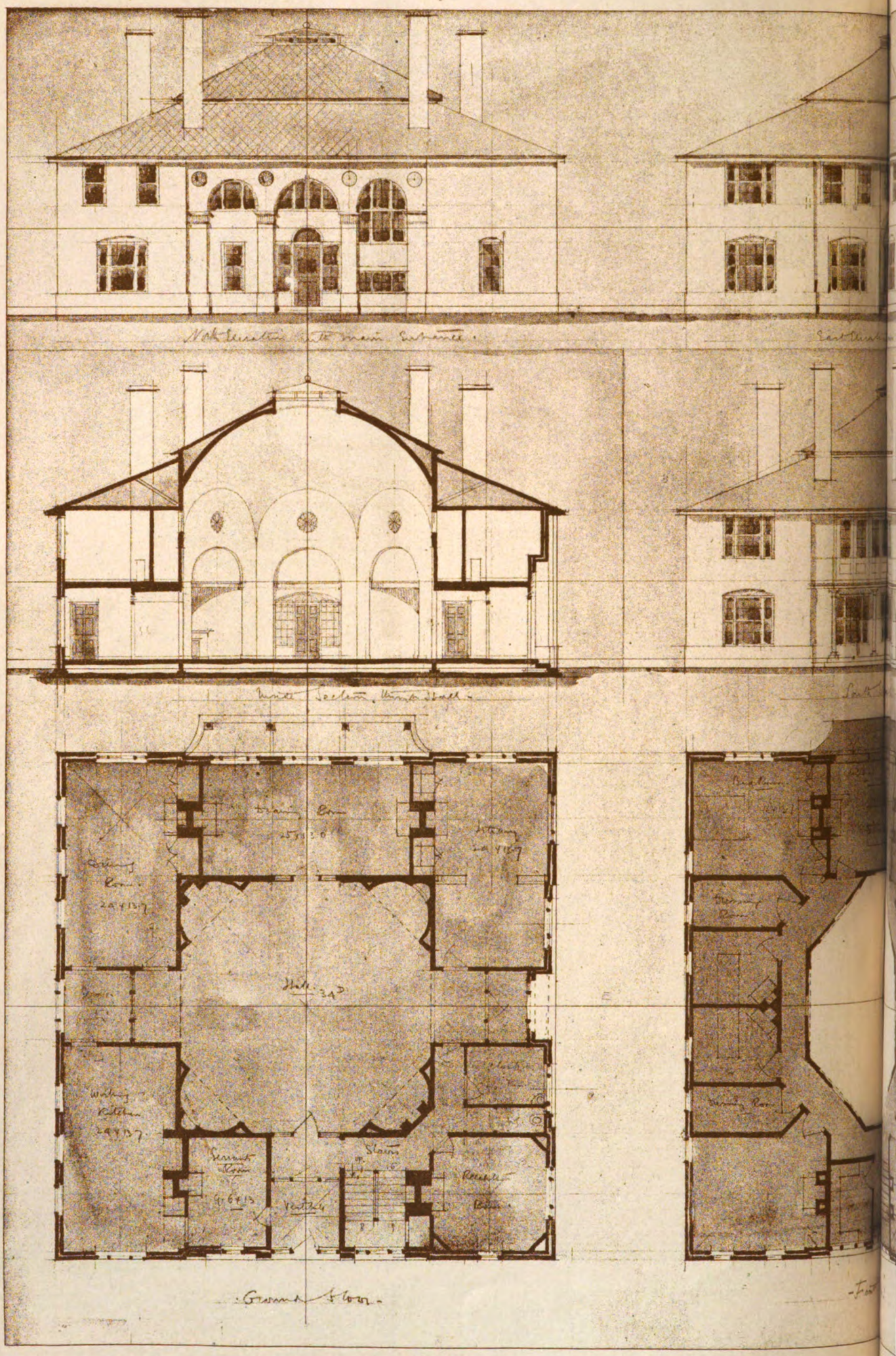
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URREY RESIDENCE OF LORD DUNMORE, V.C.

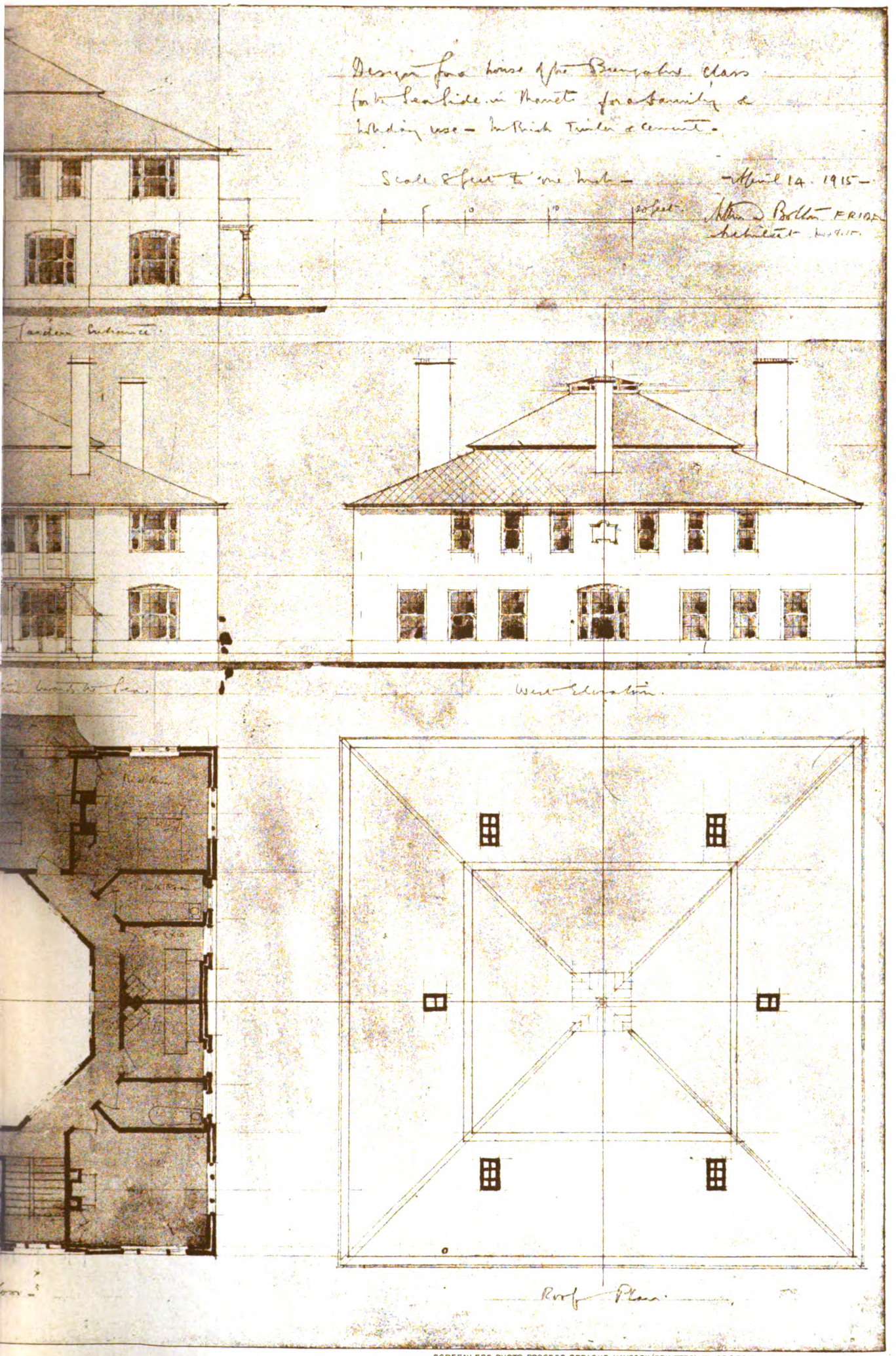
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DESIGN FOR A SEASIDE VILLA
ARTHUR T. H...

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GALOW IN THANET.

S A., ARCHITECT.

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and perhaps the fat would be in the fire before they could turn round.

The resolution was carried unanimously.

FIXING OF IMPORTED JOINERY.

The following resolution, which had been passed at the meeting of the Executive Council, was unanimously agreed to:—

"That this meeting strongly condemns the attitude taken up by the Trade Union in refusing to permit its members to fix imported or other joinery, and pledges itself to support the National Federation in any action that may be deemed necessary even to the extent of taking a ballot respecting a lock-out in supporting the principle that the builders in this country have the right to purchase their goods and carry on their business without any dictation from the offices, but this meeting has no desire to foster the interests of any firms who are manufacturing goods prepared under unfair conditions. Further, that the Regional Federations be asked to send immediately to the Administrative Committee full particulars of cases in their area where imported or other joinery is not being fixed."

PAINTERS' WAGES.

A resolution from the Southern Counties Federation, which was passed by the Executive Council, instructing the Administrative Committee to give notice at the next statutory meeting of the National Wages and Conditions Council for a reduction in painters' wages, making them 12½ per cent. less than those of other skilled craftsmen, was referred to the forthcoming Organisation Conference.

THE FORTY-FOUR HOUR WEEK.

The Secretary reported that the Executive Council had passed a resolution that the question as to what length of week should be pressed for should be left to the Administrative Committee to decide, after receiving suggestions from the Regional Federations.

The President remarked that that made it quite clear that the Administrative Committee were determined to press for a longer working week.

THE PLUMBERS' DISPUTE AT DERBY.

Mr. J. V. Porter (Derby) brought before the meeting the question of the old standing dispute at Derby between the Operative Plumbers' Society and those of their members who had remained loyal to the builders. He explained that those plumbers had formed an Association of their own, hoping their example would be followed in other parts of the country, but they had been disappointed. The master builders in Derby were willing to continue the fight, but they asked for something more than moral support from the Federation.

Several speakers emphasised the importance of the Federation standing by Derby in the matter, and eventually the following resolution was carried, subject to an understanding that the President should use his influence in certain directions, with a view to an amicable solution of the matter: "That a conference be held shortly in London of representatives from all the towns which had been attacked, together with the Federation officials, and that, after that meeting, a meeting take place at Derby to see if any action there can be usefully proceeded with."

MISCELLANEOUS RESOLUTIONS.

On the subject of cash discounts a resolution was carried to the effect that in the opinion of the Federation the usual pre-war 2½ per cent. discount for cash for goods and materials bought from manufacturers should again come into force, as from September 30. On the motion of the President, a resolution was unanimously agreed to requesting Government Departments to in future supply contractors who had tendered for work with a list showing the result. On the motion of Mr. W. Moffat (Birmingham), seconded by Mr. H. Howarth (Rochdale), the Administrative Committee was requested to take into consideration the question of the early standardisation of working local rules.

Before closing, the meeting passed a vote of thanks to Mr. Easten, the Chairman, and the members of the National Wages and Conditions Council for their services to the industry on that body.

The Victoria and Albert Museum.

THE Museum has recently succeeded in acquiring the very important and valuable bedstead in black and gold lacquer which formed one of the most interesting features of the recent sale of the Duke of Beaufort's furniture from Badminton. This bedstead is perhaps as good an example as exists of the Chinese mode which was so successfully used by Chippendale and his contemporaries in the middle of the eighteenth century. For the present it has been placed in Room 57, in which also David Garrick's bedroom furniture is exhibited.

The Department of Woodwork is at present being rearranged, with the object of giving more space especially to the English furniture, which has hitherto suffered from unavoidable congestion. Room 58 has now been cleared almost entirely of the foreign examples recently exhibited therein; and the whole of this floor will ultimately be devoted to British work.

It will be of interest to children visiting the Museum during the holidays to know that the dolls-houses and miniature models of old furniture (which date back upwards of two centuries) have now been assembled temporarily in the West Hall.

"The Architect" Fifty Years Ago.

AUGUST 5, 1871.

THE discussion last week by the House of Commons of the proposal for introducing into our weights and measures what is called the *Metrical System* brings again before the public of this country the singular fact that a small coterie of theorists are persisting year after year, and seem likely to continue to do so for an indefinite time—upon the principle that constant iteration, or what President Lincoln called "pegging away," may ultimately carry their point—in forcing upon us, for some incomprehensible reason, the adoption of a mode of reckoning, by which, in so simple a matter as our feet and inches, pounds and ounces, gallons and pints, shillings and pence, all our existing ideas and habits are to be radically revolutionised. Probably there is not one man in ten thousand, or one woman in a million, by whom the idea of such a thing is at all understood. Even journalists, if we may judge by the papers of the day, do not always seem to be very clear upon the point; and, in respect of our own present observations, if we should happen to be in some way wide of the mark, we are not ashamed to plead as a fair excuse the exceedingly mysterious nature of the motives of the Metricalists and Decimalists whose pertinacity is to us—and to many other people—so astonishing.

Competition News.

MEMBERS of the Society of Architects are requested not to take part in the Patrick and Whiteinch War Memorial Competition without first ascertaining from the Society that the conditions have been approved by the Council.

MEMBERS and Licentiates of the Royal Institute of British Architects must not take part in the Partick and Whiteinch War Memorial Competition because the conditions are not in accordance with the published Regulations of the Royal Institute for Architectural Competitions.

THE Paisley War Memorial Committee have decided that a competition open to architects and sculptors will be held for a suitable Memorial to commemorate those who have fallen in the War, 1914-1918. Plan and particulars of conditions of competition will be supplied on application to the Town Clerk, Paisley. Premiums offered: (1) £250, (2) £200, and (3) £150. The assessors will be Sir Reginald Blomfield, R.A., and Mr. D. Y. Cameron, R.A.

A STATEMENT prepared by the Wigan Borough Treasurer states that on twenty-one houses erected by the Wigan Corporation by the Building Guild there has been a saving of £33 on the estimate of £849 for the first type, £72 on the estimate of £995 on the second type, and £32 on the estimate of £1,055 for the third type.

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The Design of Hospitals.*

By Edwin T. Hall, F.R.I.B.A.

General hospitals properly belong to towns, to dense populations, and so must be in or near to the large aggregations of individuals whom they serve, both for the convenience of patients and for ready accessibility by the honorary medical staff practising in the town, so as to secure the attendance of the highest talent and experience. Sites should be surrounded by roads or other channels for wind currents, should be as elevated as possible, and where a suburban site is obtainable, it should be of such an area that the buildings may be well set back from the boundaries leaving an open zone of land, with trees and other park-like features, all of which are of value in their psychological effect on patients. Wards on the pavilion system are best, and these should be well separated by open spaces for wind currents and sunlight. If this be attended to we need pay little attention to the dicta regarding the number of beds per acre, as there is no data to justify the arbitrary figures that have been laid down from time to time. Again, the limitation of the size of a hospital has been laid down by various experts, but, given well-designed buildings and a properly organised staff, there need be no hard-and-fast rule. In the late War, the King George's Hospital in London designed by me, contained 2,400 patients' beds.

Where site permits, the axis of a ward should preferably be north and south, with windows east, south, and west, by which means the sun from rising to setting shines upon every window and wall.

Main wards most generally contain from eighteen to twenty-four beds, but there should be attached one single or two-bed ward, and, of course, the accessories of ward kitchen, sanitary annexes, stores for linen, patients' clothes, &c.

Of the area and cubic space per bed much has been written and said. The late War has demonstrated that the old standards are in excess of what is absolutely necessary, and that the standard of the Ministry of Health for Poor-Law Infirmaries is sufficient as a minimum for curative treatment, but I think 8 feet wall space should be given to a bed and about 100 superficial feet.

Where there is a medical school a larger area is required to enable students to congregate near a case and a 9 feet to 10 feet wall space is usually allowed, with a floor area of 117 to 135 feet.

In addition to the broad divisions of medical and surgical wards, there should be special wards for diseases of women and of children, for eye, ears, and nose cases, and in manufacturing districts for burns, and ample accommodation for casualties.

The disposition of operating theatres is one on which surgeons differ. In some large hospitals, theatres are all concentrated with their accessory rooms in one block; in others, as at Manchester, the wards are grouped in units, each under a senior surgeon, with its detached self-contained operating suite consisting of seven rooms.

There should be an isolation block for suspected cases of infection.

The out-patients' department is of great and growing importance. It should be detached, but with convenient access to the main buildings, for ready transference of patients. This should contain, in addition to medical and surgical consulting rooms with their dressing and examination rooms, rooms for dentists and oculists, for child welfare work, for maternity, for lectures to women on home hygiene and for the almoner.

Except in very large hospitals, the dispensary should be arranged so that it may serve the in-patients as well.

The treatment of venereal diseases both for in- and out-patients should be in a separate building near the in-patients' wards, for it is found in practice that visitors to patients are shy of going to these venereal wards if they are conspicuously set apart from the rest of the buildings.

X-ray work has so developed that provision must be made for this, and where one centre is alone justified, this should be conveniently placed both for in- and out-patients. In a large hospital, electrical treatment on an extensive scale should be provided for. Medical baths are again of growing use, and in the late war were in extensive request. Another desirable feature in an ideal hospital is the surgical therapeutic room or gymnasium, and one of the best I know is that at Nuremburg.

A laundry with patients' and staffs' sides should be provided, as well as a disinfector for bedding and clothes, and a destructor for dust. Workshops, boiler and engine house, should give accommodation where necessary for the generation of electricity, for central calorifiers, both for heating and hot water supplies, whence all buildings may be served.

The mortuary buildings, with its post-mortem room and mortuary chapel, should be so placed that hearses shall not be seen by the patients. There should be a cold storage room for corpses, and refrigerated larder for meat and milk.

In hospitals with medical schools and hostels many other departments are required, but the details of these are outside the scope of this lecture.

In every hospital a chapel for Divine Service should be provided. The commendable zeal for the physical treatment and cure of disease has obscured in late years the consideration of the spiritual side of Man's nature, and as the state of a man's soul and mind largely affect his powers of recuperation and desire for life, the doctor, the nurse, and the chaplain, who are also psychologists, have greater influence than those lacking the spiritual insight which can diagnose and comfort a mind diseased, and perhaps raise the patient to a higher plane.

Lighting should be by electricity, heating generally by hot water (with an open fire in each ward for cheerfulness), but in the operating theatres by steam so as quickly to raise temperature.

Ventilation should be by fresh air passing over the radiators so as to change the atmosphere of a ward continuously to the extent of at least three times an hour.

Corridors between pavilions, I think, should be open at the side for through aëration. In Germany, they have generally, no covered ways at all, which I think is wrong.

There should be separate homes for the nursing and domestic staffs, male and female. Their dining rooms should be grouped near the general hospital kitchen, but otherwise the homes should be so placed that when the staff is off duty there may be pleasant prospects for all. Recreation courts for tennis, etc., should be provided. The resident medical staff may be housed in the administration building, which, with its offices, board, and committee rooms, should be readily accessible to the public

Scarlet Fever and Diphtheria.

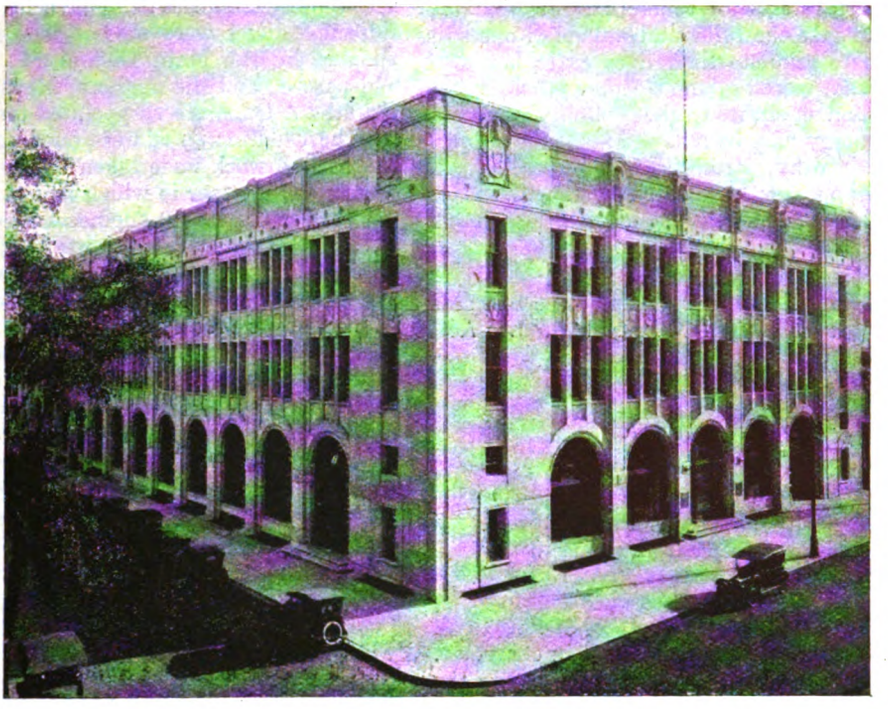
The general principles governing all hospitals apply to these, but for infectious diseases more isolation from the community is necessary. The Ministry of Health require a zone forty feet wide between the boundaries of the site and the patients' buildings in all scarlet fever and diphtheria cases, but a wider one is better. In small pox, a zone of ¼ mile is required, and this from all the evidence obtained is desirable. There should be entire separation of wards for scarlet fever from those for diphtheria and neither of these should be in the same curtilage as small pox wards. In these hospitals there should be isolation pavilions to provide accommodation for nearly ten per cent. of the total patients so that other and alien infectious diseases may be segregated. At Nottingham, under its distinguished medical officer, Dr. Boobbyer, infectious cases are successfully treated in the open air in verandahs.

There should be a receiving room for examination of patients. The area per bed should be greater, and the number of diphtheria patients in one ward should be less than in a general hospital, as more nursing is required.

One theatre suite is sufficient for each hospital.

* Abstract of a paper presented at the Congress at Folkestone of the Royal Sanitary Institute.

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Provision should be made for the destruction of badly infected articles, and for the sterilisation of sewage.

SANATORIA AND HOSPITALS FOR CONSUMPTION.

Probably more interest is to-day focussed on this subject than on the others I have dealt with.

The sanatorium, stated shortly, is the embodiment of the root idea of open-air treatment under medical supervision. It is a residential school of hygiene, where patients in the early stages of tubercular infection are taught primarily to take the fullest advantage of open air and sunlight, and to regulate their lives as to hours of rising, eating, resting, working, and sleeping; that disease may be arrested and eradicated; that vitality may be stimulated; that energy may be renewed; that the subject may come out a healthy, stronger, and better citizen, and when he comes out that he may exercise the influence of his first-hand knowledge and disseminate the lessons he has learned.

The first sanatorium was erected in 1854 at Gorbersdorf in Silesia, but in 1884 Germany passed the Sickness Insurance Act, and in 1891 the Invalidity Insurance Act, and between 1896 and 1904 no less than forty-five sanatoria were founded in Germany, with a total of 6,500 beds. In England and Wales up to 1907 there were sixty-three public and thirty private sanatoria, with a total of 3,987 beds.

The German sanatoria are based on the barrack type, many are of three, four, and five storeys, and, as a type, are to be avoided.

I was entrusted with the first large one erected under these new conditions, that for the King Edward Memorial Association at Pontywal, in Breconshire, for 304 beds. It is of entirely novel construction, permanent in character, without sunk foundations. Its contract price before the war, including all engineering, boilers, electric generating plant, accumulators, laundry machinery, kitchen plant, heating, lighting, &c., was about £175 per bed. The ground sloping rather steeply towards the south, and practically level across, dictated the most economical block plan. There are ten parallel one-storeyed pavilions looking over one another for ambulant cases. The larger ones contain twenty-six patients. Every patient has a separate room opening on to a terrace. The children's wards contain four beds each, all inter-communicating. There is an isolation pavilion divided into separate rooms with glazed partitions for better supervision. The hospital block is of two storeys for bed cases, and each patient has generally a separate ward, but there are two wards of four beds on each floor.

The nurses are located to the south of all, where they may be quiet.

The male servants are in the power-station block, which encloses a quadrangle, from which the boiler- and engine-house, the accumulator-house, the laundry, the disinfector, the mortuary, the laboratory, and the stores for steam and house coal all open.

The medical superintendent has a house, and the assistants are located in the administration block, which is in the centre of all.

The dining and kitchen block, with the stores, is also central. Writing-rooms adjoin the patients' dining hall. There is a separate recreation hall and billiard-room for patients, the former being fitted for cinematographic displays.

There are four cottages for married employees, and a chapel is about to be erected.

Among other modern public sanatoria may be mentioned that for the county of Kent, at Lenham, with 125 beds; the Highdown Sanatorium for London patients, at Godalming, with 238 beds; the Copthorne Sanatorium, at East Grinstead, for London patients, with 300 beds. Among private ones are the Frimley Sanatorium for 150 patients; King Edward VII. Sanatorium, at Midhurst, for 100 patients; the Northwood Sanatorium, for 114; the Crossley, in Cheshire, for 90; and the Winsley, near Bradford-on-Avon, for 60 patients.

British Engineering Standards Association.

THE British Engineering Standards Association held its third annual meeting on July 14 at the Institution of Civil Engineers, when the Chairman, Sir Archibald Denny, Bart., presented his annual report and made a review of the position. The meeting was well attended, some eighty members being present, and a number of useful suggestions were made. The accounts, as recently adopted by the Main Committee, were duly presented and passed, and the auditors, Messrs. Deloitte, Plender, Griffiths & Co. were reappointed for the ensuing year.

The Chairman's address once again showed the vastness of the work undertaken by the Association and the economical manner in which it is carried out. There are now more than 1,500 engineers who give their time and experience to this national work, often at great personal expense and inconvenience. It must, however, be said that whereas engineers generally take the keenest interest in the various problems submitted to the Association, the business community is not as impressed as it should be with the commercial value of standardisation, otherwise the Association would not have so much difficulty each year in raising the comparatively small sum required for this work, which is of such value to the trade and commerce of the country. Last year £15,000 alone was expended, of which the industry of the country contributed about £10,000, the remainder being in the nature of grants from His Majesty's Treasury and the Indian and Dominion Governments. If there were only a stronger link between the engineering and the selling side of industry those who hold the purse-strings would realise to a greater extent their privileges as well as their obligations, and so enable the Association adequately to cope with the increasing demands being made upon its organisation.

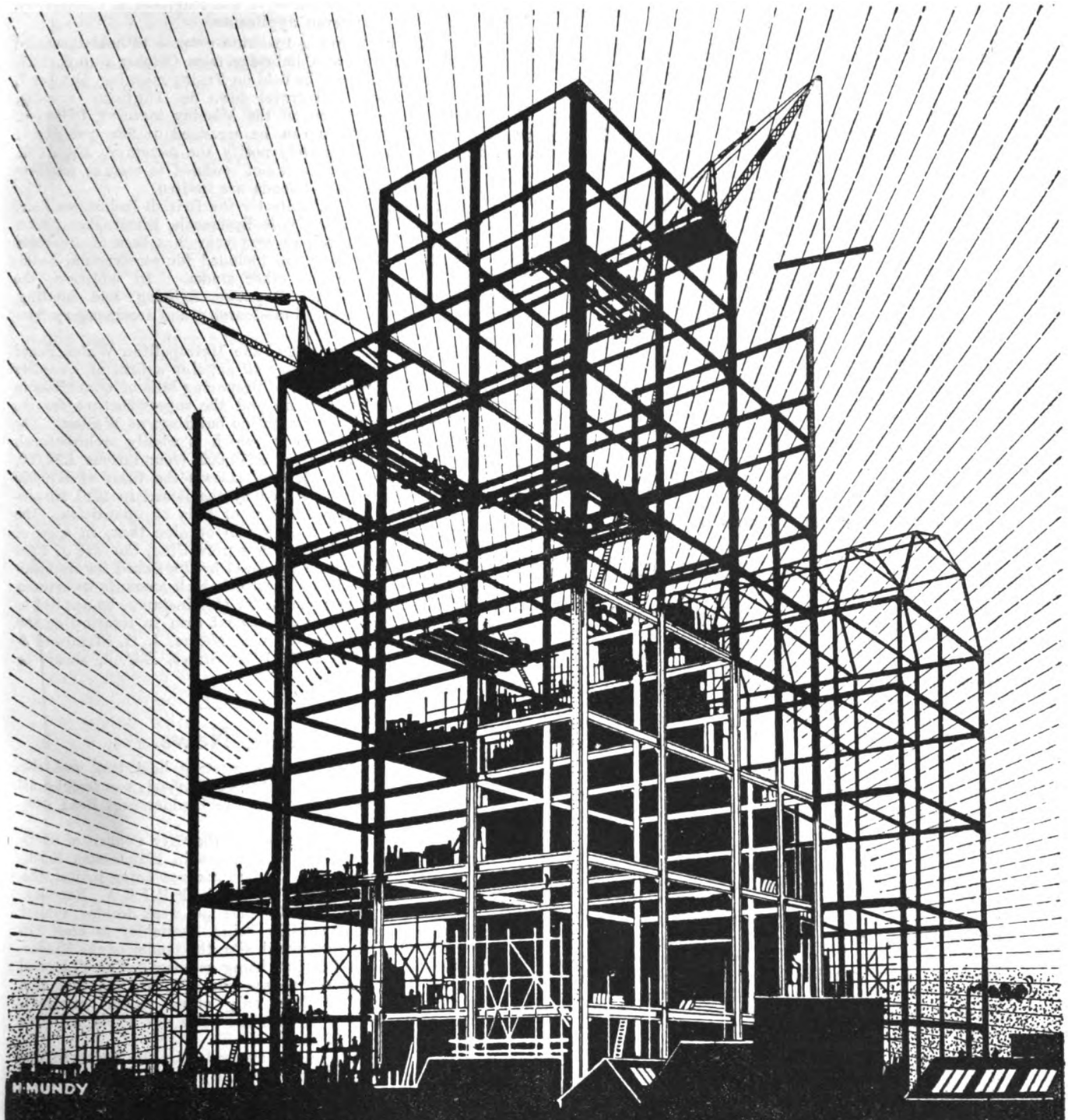
The Chairman briefly touched on many aspects of the work in its connection both with home and export trade. He emphasised the progress made in regard to the revision of the steel sections; the standardisation of railway materials, in which the Association is taking more and more part with the cordial co-operation of the railway companies; the automobile work which is now completely reorganised; the work in connection with a British specification for girder bridges, so badly needed; the extensive programme of standardisation of details in the construction of ships and their machinery; the important development in the electrical work; and also the difficulties surrounding the standardisation of aircraft materials and parts. He mentioned that the chemists and chemical engineers were now making use of the organisation, and that their work was bound to have a beneficial effect on that branch of British trade. He also referred to the satisfactory working agreement which had been arrived at with the various Research Associations which will enhance the already cordial collaborations between those engaged in research and the Standards Organisation, the line of demarcation of which is sometimes none too easy to draw.

In glancing at the work abroad, he mentioned that there are now eleven Local Committees actually at work; these Committees are continually making valuable suggestions to the Home Committee, and from their vantage point of experience in local conditions are in a position to offer most welcome advice.

He also mentioned the question of international standardisation and the proposals which are to be put into effect in order, with proper safeguards, to assist in guiding along right lines the trend of international agreement in engineering matters generally.

A number of suggestions were made by those present, the more important of which were the advisability of giving greater publicity to the work of the Association and the question of assisting purchasers to ascertain without difficulty the names and addresses of manufacturers who are prepared to work to British standards. These

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suggestions will be considered by a Publicity Committee recently nominated.

There is undoubtedly a growing appreciation, both by the Government and by industry, of the value to the trade of the country of this independent and absolutely neutral organisation. With the continued and loyal co-operation of the engineers of the country which the Association so abundantly possesses, and with the moral and financial support of the Government and industry at large, the Association may look forward to much increased usefulness in the future.

A New Paving Breaker.

A NOVEL "star turn" has been added for the benefit of those who find an unquenchable fascination in watching the operations of road repair. In London, at any rate, there always seems to be pedestrians able and willing to do nothing except gaze at others who do something. Last week a number of these care-free, happy souls, congregated at the foot of Blackfriars Bridge, were to be seen roused out of their usual lethargy and almost stimulated to activity themselves. At first sight the stage seemed to be set for the all too familiar scene of a busy thoroughfare under repair and traffic struggling to carry on under incredible difficulties. The sort of thing that ceased to be amusing long ago as soon as it proved to be the prelude of days and weeks of discomfort. But something more than that would be required to excite the *blasé* audience lining the barricades. The mystery was soon explained on reaching the spot—and the number of interested spectators was increased by one. It was no super-navvy this time demolishing the paving with Herculean blows, but the latest thing in mechanical devices for achieving the same purpose. Many previous attempts have been made to do this, but with no marked success. The Ingersoll Rand Co. have now specifically designed two machines, called paving breakers, for the purpose, which have justified every expectation. These are all-steel drills weighing 58 lb. and 68 lb. operated by a portable gasoline-driven compressor (Ingersoll-Rand, type 14) or by electricity. The saving in time and labour is unquestionable.

A firm who specialise in this class of work estimate a saving of two-thirds in cost and the work is done in about one-quarter of the time. Their experience was that a good crew of eight men will cut by hand about 80 linear feet of 18-inch to 24-inch width asphalte and concrete in an eight-hour day; the asphalte averaging 3 inches to 6 inches in thickness and the concrete about 6 inches. But three men with a compressor and two "CC—25 paving breakers" cut an average of 300 linear feet per day. It was a pleasure to watch the quick and easy way in which last week this drill was breaking off blocks of concrete in New Bridge Street, and hope was inspired that road repair will not always be the tedious and costly process it is at present.

In addition to their principal application the "paving breakers" have been found very successful for tearing out concrete and brick foundations, removing slag from reverberatory furnaces, dismantling concrete ships, taking up concrete floors in factories, &c.

PLANS have been approved for the erection of a cinema theatre in Scotland Street, Sheffield. The architect is P. A. Hinchliffe, F.R.I.B.A., Barnsley.

MESSRS. SHERWELL'S NEPHEWS, incorporated insurance brokers, ask us to announce that they have removed to more commodious offices at 12 and 13 Bow Lane, E.C. 4.

THE Martinet Slate Co., Ltd., ask us to announce that they have removed from Imperial House, Kingsway, W.C. 2, to West Africa House, Kingsway. Their telephone number will be Regent 4900.

THE continued demand for a reliable exposition of law as between landlord and tenant is evidenced by the issue of a new edition of the "Express" Guide to the Rent Act, a copy of which we have received from the publishers, the "Liverpool Courier" and "Evening Express." The subject with which it deals is an important as ever, as shown by the fact that a large part of the work of the County Court judges consists of litigation under the Act, and is frequently followed by appeals from their decisions. As Lord Justice Eldon Bankes said in the latest reported case in the Court of Appeal, "There is no section whatever in the Rent Restriction Act (1920) which does not create difficulties." All these decisions are embodied in the new edition of the "Express" Guide, which has generally been enlarged and brought up to date, and forms a trustworthy handbook on this branch of the law.

General.

MR. H. M. ENDERBY, of Skegness, has been appointed assistant to the City Surveyor and Engineer of Canterbury. There were sixty-seven applicants.

THE Town Planning Institute propose to hold the third annual conference at Cambridge from October 7 to 9, 1921. The first meeting will be held on Friday morning, October 7, so that members will travel down on Thursday evening, October 6, and return on the Monday morning following. Hotel accommodation can be arranged at 20*s*. per day if members will immediately notify the secretary, Mr. A. R. Potter. The conference is not confined to men or members of the Institute only—friends are invited.

THE schedule of exhibits for the British Industries Fair, which will be held at Castle Bromwich, Birmingham, from February 27 to March 10 next year, has been considerably widened. New groups are included for construction building and decoration and other trades. In addition, the existing groups of metals, power, lighting and heating, engineering, hardware, brassfoundry and ironmongery have been enlarged.

THE Works Committee of the Metropolitan Water Board reports that it is necessary to appoint a firm of quantity surveyors for the purpose of preparing bills of quantities in respect of the foundations and the superstructure for the additions to the pumping station buildings at Walton. The estimated cost of the work, which is wholly architectural, amounts to approximately £114,000 (foundations £52,000, superstructure £62,000), and exceeds the limit of £70,000 in the scale of fees approved by the Board in 1913 in connection with the preparation of bills of quantities. The committee state that they are of opinion that, in view of the greatly increased prices now prevailing, the rate of 1 per cent. (which is the rate approved by the Board for architectural work, the estimated cost of which amounts to between £50,000 and £70,000) should, in this instance, be applied to the whole work, and that the next firm in rotation on the list approved by the Board, viz., Messrs. I. H. Strudwick & Son, of Falcon Court, 32 Fleet Street, E.C. 4, should be appointed for the purpose.

Housing News.

AT the Barnsley Council meeting held last week the tender of Mr. William Malthouse, Sheffield, was accepted at £59,755 for ninety houses on the Huddersfield Road site, Barnsley.

PLANS have been approved by the City Council of Sheffield for the erection of four houses in Hammerton Road, Hillsborough, Sheffield. Tenders are now being invited, the architect being Mr. P. A. Hinchliffe, F.R.I.B.A., Barnsley.

KIDDERMINSTER Town Council last week decided, subject to the Government subsidy being available, to erect 116 houses on the Old Aggborough site, the tender of the Kidderminster Federated Builders being accepted. The Federated Builders' price for the houses was £83,760, and that of a Wolverhampton firm (the only other tender received), £91,505. It was stated that the price per house had come down, roughly, by £200.

THE Housing Committee appointed by the Northern District Committee of Ayrshire County Council have reported the acceptance of offers for an instalment of the scheme at Dreghorn and Kilbirnie. At Dreghorn the accepted tenders are based on the footing of thirty houses being built at an estimated cost of £29,262 8*s*. 4*d*., but it is intended meantime to proceed with only ten houses (all four-apartment) at an estimated cost of £9,740. The accepted tenders for Kilbirnie provide for thirty-two houses to cost £27,318 5*s*., but it is proposed to erect twelve houses (four four-apartment and eight three-apartment) at a cost of £10,000.

MAJOR PRESCOTT asked the Minister of Health in the House of Commons recently, the relative merits or demerits in cost and rapidity of execution in the employment of municipal engineers and architects in the various housing schemes throughout the country; whether sufficient information is available to indicate what percentage professional charges represent in both methods; and if the cost is less where the work has been done by the local surveyor? Sir A. Mond replied as follows: "As regards rapidity of execution under the two methods, I cannot give any general answer which would be fair to both. As regards relative cost, such figures as I have at my disposal indicate that the percentage cost for professional charges where the local official is employed would be about 1 per cent. on a scheme of, say, 250 houses as compared with something over 2 per cent. where outside professional men are employed."

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What is the Best Policy?

WE have been told that Honesty is the Best Policy; but apparently His Majesty's Government are not of that opinion, or how otherwise can we understand their repudiation of the perfectly definite undertaking given to those who, within a certain time, were willing, with the help of a small subsidy, to do something towards making up the much-advertised shortage in housing? In the past the words of a Minister of Great Britain were considered as definite and final; and it was the boast of our people that, though our Governments might make mistakes, they would maintain a standard of rectitude in word and deed which would compel respect from all. But, apparently, such a standard is now considered old-fashioned and inoperative. If breaking faith is convenient, there is no reason why we should not do evil that good may come, though the good to be obtained is frequently so doubtful as to give us an idea that His Majesty's Ministers may be rightly classed as gamblers. We have always opposed the housing policy of the Government and foretold its inevitable failure, which has come about with dramatic completeness; but the last act of the new Minister of Housing in relation to the housing subsidy is like the action of a shipwrecked mariner who, to secure his own personal safety, pushes a man into the sea.

Let us recapitulate facts. The Government sanctioned Dr. Addison's subsidy to private builders in the hope of giving a stimulus to housing. Last autumn the period during which the agreed subsidy of £15,000,000 was to be paid to private builders was by the agreement of all parties to be extended until the middle of 1922. Unfortunately, the clause was buried with a number of highly controversial issues in an omnibus measure promoted by Dr. Addison, which was thrown out before Christmas. But a promise was then made that the extension of the subsidy period was to be provided for in a separate measure to be introduced as a Bill and passed with the concurrence of all parties. More than this, the promise so given was confirmed by a leaflet given by the Ministry of Health to inquiring applicants. When Sir Alfred Mond succeeded Dr. Addison this promise was confirmed, and a Bill was even passed confirming the arrangement. A few weeks ago this definite promise was suddenly revoked, and we have a leaflet from the Ministry graciously informing us that, subject to certain conditions, houses started before August 25 next may be eligible for the subsidy! And this although only some five million out of the fifteen million pounds put aside by the Government has been expended.

If our national finances were so nicely balanced that ten million pounds would make the difference between solvency and bankruptcy, *force majeure* might be argued to be a sufficient and reasonable excuse; but do the actions of those in charge of the spending departments of the Government lead one to suppose that it is necessary to repudiate solemn obligations to save ten million pounds? We know that the telephone service is carried on at a loss which it would be easy to cut by handing it back to a private company. We know that the personnel of Government Departments is now nearly as great as it was during the War. We know that elections are fought and won by anti-waste candidates who are supported because the Government is, rightly or wrongly, considered as a careless steward of the national finances. Does the Government seriously believe that this action of one of its Ministers, in deliberately repudiating a promise in order to effect a saving of ten million pounds, will convince a nation that the Government is seriously determined to cut down expenditure? We do not think the electorate will take this view. Such an action is far more likely to produce a widespread feeling of insecurity among those who, during the War, have lent money to the Government. If one promise can be repudiated, why not another? Why should a promise to pay a certain interest on loans be a sacred obligation if it is inconvenient, and if the payment of a smaller rate of interest would be a convenience? In other words, what security remains, and what are the promises of a Government worth? We know such things have taken place in some of the delightful Republics of South America in certain crises of their history, but we have never understood that those States have earned thereby the regard of the commercial world.

We quite understand and agree with the reasons which have led to the scrapping of the main part of the housing policy of the Government. It was in the beginning based on faulty premises; and those concerned, organised labour and the manufacturers and merchants who supplied materials, and possibly —as Sir Charles Ruthen alleges—the contractors, did not help to make it a success. It is sufficient to know that the loss on each house built is something like six times what was estimated to provide a good and sufficient reason for its abandonment. It has been weighed in the scales of experience and found wanting, and none but a visionary or a fool could expect it to be continued.

But none of these reasons apply to the subsidy granted to private builders. Whatever the cost of the houses erected, the Government's contribution remains the same. Property is created which helps, and does not compete with, that created by ordinary private enterprise, and which will produce in rates and income tax a sum of money which would wipe out the subsidy grant after the expiration of a term of years: a much-harassed industry is encouraged, and, above all, the creation of a large number of freeholders—always a security in any State—is helped. What is the position of the Government towards those who have purchased land and made arrangements for its development for subsidised housing? Surely such owners and speculators might reasonably expect compensation for expenditure

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which would not have been incurred but for the undertaking given by those in authority. It is absurd to argue that, because the cost of building is less than it was a year ago, the subsidy is not required. The cost of building is more than double what it was in 1914, and is high enough to deter those who are not in urgent need of accommodation. The reasonable alteration, if any, would be to reduce the subsidy in the same ratio as the cost of building, and not to withdraw it altogether. There might have been good reasons why the subsidy should never have been offered, there are absolutely none why it should be withdrawn. In conclusion, we again ask our readers whether it would not be better policy for the State to carry out the obligations which it definitely undertook than to repudiate them?

Illustrations.

CHURCH AT WINKSLEY, NEAR RIPON. Messrs. Connon & Chorley, Architects, FF.R.I.B.A.

WEST FRONT, WESTMINSTER ABBEY, AND CHARING CROSS, LONDON. By J. Tim Macdonald.

BROOKFIELD HOUSING SCHEME FOR ST. PANCRAS BOROUGH COUNCIL. Albert J. Thomas, Licentiate R.I.B.A., Architect.

The housing scheme at Brookfield, Highgate, N.W., for the St. Pancras Borough Council gives accommodation for 102 families and occupies an area, including roads, of 10¼ acres.

It is on sloping ground having a difference in level of 29 feet from south to north, is situated within three minutes of Parliament Hill Fields, and has the wooded heights of Highgate and Hampstead as a background.

The lay-out was governed by the winding road through allotments called Croftdown Road, leading from good modern residential property at the south end, to the cemetery, and very poor-class houses at the north end A second through road has been formed from near the upper end of Croftdown Road to St. Albans Road, with a subsidiary crossroad at the south end.

The upper part of the estate is laid out for flats, four stories in height, in blocks of eight and sixteen, of three and four rooms, besides cooking sculleries, bathrooms, etc., and the lower portion with maisonettes, in blocks of four and five and of four and five rooms each, besides cooking scullery, bathroom, etc., finishing with a pair of six-room cottages.

An allotment is planned for each flat in the rear of the buildings and each maisonette has its own front and back gardens with direct access. The front boundary and party fences are formed of concrete posts and wire strands planted with privet.

The blocks of buildings are set out on centre lines with clear vistas between each block, or terminated at the end of roads by a building.

All buildings will be wired for electric light, and gas installed for domestic hot-water services and cooking purposes, the living-rooms being fitted as sitting-rooms, with tiled register hob-grates.

The facings of the flats are red-brick, with blue-brick plinths and artificial Portland stone dressings and main moulded cornice and roofs covered with hand-made sand-faced roof tiles. The maisonettes will be roofed with similar tiles and faced with red bricks and brown plinths, the upper part of each intermediate block being rough-cast, the eaves being formed with tile soffits. The windows of the flats will be boxed sash and frames and wooden casements for the maisonettes, and all floors will be of steel and concrete.

The subsoil is a poor clay necessitating special care with the foundations laid in cement concrete and London stock footings, the trenches being exposed as long as possible for shrinkage before concrete is put in.

The scheme is exceptional in that it provides accommodation for twenty tenancies to the acre, and at the same time gives large gardens and ample open space about and around the buildings, this only being possible by adopting as a principle the combined use of flats and maisonettes, thus saving actual building-site area on land too costly for the usual lay-out of groups of houses.

The general effect will be very pleasing, and the whole scheme promises to be unique as a housing scheme. Mr. Albert J Thomas, M.S.A., Licentiate, R.I.B.A., is the architect.

Competition News.

Paisley War Memorial Committee propose, as we stated last week, to award premiums of £250, £200, and £150 for the most suitable designs for a local memorial, to be erected at the Cross. The competition is open to architects and sculptors. The cost of the memorial must not exceed £11,000, and drawings and other particulars are to be delivered at the town clerk's office between December 1 until noon on December 3. Sir Reginald Blomfield, R.A., and Mr. D. Y. Cameron, R.A., are to act as assessors. In the event of no design of sufficient excellence being submitted, the Committee reserve the right to withhold the appointment of an architect.

The R.I.B.A. Competitions Committee desire to call the attention of members and Licentiates to the fact that the conditions of the Chelmsford War Memorial Competition are unsatisfactory. The Committee are in negotiation with the promoters in the hope of securing an amendment. In the meantime members and Licentiates are advised to take no part in the Competition. A similar warning has been issued to members of the Society of Architects.

Stoke Park has been offered to the Guildford Town Council for £42,000, including the timber. It was first offered to the Commissioners of Inland Revenue in settlement of the late Mr. R. Budgett's estate duties, and the Commissioners think the property might be suitable for municipal purposes. The General Purposes Committee of the Council is considering the matter.

"The Architect" Fifty Years Ago.

August 12, 1871.

The Theft of our Public Land.

People are at length becoming more outspoken upon what is mildly—much too mildly—designated the Commons Enclosure question. How long the British lion will submit to be trifled with, when possessed of the impression, however erroneously, that he has no redress, is a difficult thing to determine; and how much growling he will utter without any thought of openly gnashing his teeth it is not easy to say; but certainly when once he comes to see that resistance may not be in vain, he is not indisposed to express himself sufficiently strongly, and to assume a fighting attitude with as much earnestness as could be reasonably expected of an animal so well-disciplined and "judgmatical." Accordingly, after bearing, in this matter of Commons Enclosure, an amount of insolent, and we fear irreparable injury, which can only be estimated now by means of lengthy statistical tables, under the idea that, however palpably unjust, oppressive, and even heartless it might be, the theft was of such a nature technically as to be "on the windy side of the law," the people of London, finding themselves—better late than never—supported by Parliamentary debates and legal decisions, and above all by the purse of the City Corporation, may now be expected to incline to plain and expressive language, if no more, in calling a selfish, wicked, and cruel public crime by its right name.

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Art News of To-day.

A RECENT addition to the National Gallery has been the attractive portrait, which was painted in 1879, by Millais of his friend, Mrs. Jopling, now Mrs. Jopling-Rowe. Louise Jopling, an artist of considerable merit and achievement, besides being a writer had studied at Paris under Chaplin, and was for many years a constant exhibitor in the Royal Academy, Grosvenor Gallery, and the Paris Salons. She at one time started and ran a school of art for women students in London, which had very considerable success. Apart from this Louise Jopling had visited India, and was founder and President of the Society of Immortals; she might, in fact, be compared to her famous contemporary, Miss Ellen Terry, in her breadth of artistic knowledge and sympathy and her great personal charm. The portrait just mentioned has been presented to the National Gallery by Mr. Lindsey Jopling.

Another painting of interest, recently loaned to our National Gallery by the Trustees of the National Art Gallery of Scotland, is the copy made by Nicolas Poussin of the famous "Bacchanal," or "Feast of the Gods," begun by Bellini and finished by Titian, as a companion picture to this latter artist's famous "Bacchus and Ariadne" in our National Gallery and the two similar canvases at Madrid. The original painting of the "Bacchanal" was for many years at Alnwick Castle in the possession of several successive Dukes of Northumberland, but is now reported to have gone to America, having been sold some five years ago to an American connoisseur. It is a matter for regret that the nation should not have had the opportunity for purchase—before it left the country, probably for ever—of this famous masterpiece, which would have formed such a superb pendant to Titian's "Bacchus and Ariadne." We have, however, now on loan in its place this fine full-sized copy by Poussin, who owed so much to his study of Titian's works, of the Alnwick picture, which is hung this month in Room XXII.

We mentioned last week in these columns the acquisition by the Victoria and Albert Museum from the Anglesea Collection of the marble bust portrait of Mr. Baker, which has a special interest from its being one of the very few portrait works of the great sculptor, Gian Lorenzo Bernini, outside Italy. Mr. Baker was, as we have noted, the King's Messenger of his period, charged with conveying to Rome in 1636-37 the triple portrait of Charles I. by Vandyck, now in our own Gallery; from which Bernini made the bust of that King which seems to have perished in the Whitehall fire.

But this "head and busto of Mr. Baker in white marble" was in the possession of Sir Peter Lely during the great sculptor's lifetime: it was bought two years after his death by the Earl of Kent, and Horace Walpole alludes to it with high praise when it was, in his own lifetime, in the possession of Lord Royston (afterwards Earl of Hardwicke), and states that it was thought better than that of the King himself. "The hair," he says, "is in prodigious quantity, and incomparably loose and fine; the point-band very fine. Mr. Baker paid Bernini one hundred broad pieces for this, but for the King's Bernini received one thousand Roman crowns." This portrait bust of Mr. Baker is now on view in the Central Hall of the Victoria and Albert Museum facing the main entrance. It has been set up on a handsome English pedestal of the eighteenth century.

Stowe House is now stripped of its contents, the last of the art treasures to be disposed of having been the statuary. This entailed a visit by prospective buyers through the grounds to the "Grecian Valley" and "Elysian fields," which Horace Walpole describes in his account of his visit to Princess Amelia at Stowe. The august lady had on that occasion an arch erected by Lord Temple in her honour, with the statues of Apollo and the Muses on either side of the arch. "Between the flattery and the prospect," writes Walpole, "the Princess was really in Elysium; she visited her arch four or five times every day, and could not satiate herself with it."

The old stone high-relief, mentioned already by us, of the Battle of Bosworth Field, dating 1485, and brought originally from Castle Hedingham in Essex, was acquired by Mr. Harry Shaw, purchaser of the house and estate, for one thousand guineas; as well as the life-size equestrian figure of George I., a frequent visitor to Stowe, for 550 guineas.

Subsidy to Private Builders.

THE Ministry of Health has issued the following instruction to local authorities on their revised housing policy:

The Government have decided to limit the grant of subsidies to private builders, under the Housing (Additional Powers) Acts, 1919 and 1921, to houses actually commenced before July 1 under a certificate given by a local authority, or on the promise of such a certificate, and completed not later than June 23, 1922.

In order to meet cases of hardship, however, local authorities may issue certificates where commitments have been entered into on or before July 14, 1921, the date of the Minister's statement in Parliament on housing policy. In such cases subsidy will be paid for houses in respect of which the local authority certify that actual construction was begun on or before August 25, 1921, and which are completed within the prescribed time and otherwise comply with the conditions of the subsidy scheme.

It will be for the local authority to satisfy themselves that a definite commitment existed before July 15. Generally any expenditure incurred in anticipation of subsidy, such as the purchase of land, or any contractual obligation involving financial liability, will be regarded as a commitment.

In view of the limitation of time, local authorities will realise that it is essential to ensure that all cases submitted to them are dealt with immediately.

In any case of doubt the question should be referred promptly to the Ministry with a full statement of facts, addressed to the Secretary, Ministry of Health, Whitehall.

Where a certificate is issued under this discretionary power a typed slip must be attached in the following terms, and signed by the officer authorised to issue the certificate:

"This certificate is issued in pursuance of the discretion conferred upon the local authority to grant a certificate in cases where commitments had been entered into before July 15, 1921.

The certificate is subject to the conditions—

(1) That no grant will be payable in respect of any house to which it applies unless construction is begun on or before August 25, 1921.

(2) That houses to qualify for grant must be completed fit for occupation not later than June 23, 1922."

A similar slip should be attached to the copies of the certificates sent to the Housing Commissioner and retained by the Council.

Paragraph (*b*) of the "conditions" on the printed certificate should be deleted.

A scheme has been made by the Minister and approved by His Majesty's Treasury rendering houses commenced before July 1, 1921, eligible for grant and providing for the exercise of the discretionary power described above. The conditions as to planning and construction already prescribed remain as before.

THE Government have decided to recommend the appointment of a Royal Commission to consider the question of the government of Greater London.

MR. ALFRED SHUTTLEWORTH has presented to the Lincoln Public Library four valuable water colours by the distinguished artist Charles Pratt Terrot. The largest is a view of Lincoln from the south-east. There is another view of Lincoln, one of Tattershall Castle, and another of Boston. The artist was for forty-eight years vicar of Wispington, near Horncastle, and was a noted antiquary, and one of the principal topographical and architectural draughtsmen of his time.

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The Custom House, Dublin, and its Architect.—II.

R. M. Butler, M.R.I.A.

(*Concluded from p.* 41.)



CUSTOM HOUSE, DUBLIN. James Malton, delt et fecit.
(London: Published July 1792 by Jas. Malton and G. Cowen, Dublin.)

The building of the Custom House proceeded for several years without any noticeable incident being recorded. In 1786 the large dock adjoining was finished, and in the same year Carlisle Bridge was begun from Gandon's designs. In that year also Gandon designed the Military Hospital in the Phœnix Park, making a present of the design as his contribution to a benevolent object. In 1796 Gandon's old master, Chambers, died, and Gandon wrote a brief appreciation of that great architect. Some years before, in 1790, the Royal Academy proposed to confer upon him their Travelling Scholarship, but for want of time he was obliged to decline the honour.

If Gandon was fortunate in securing extensive patronage, deep appreciation, and was privileged in being able to realise several noble conceptions, he was, on the other hand, by no means free from the vexations and mortification that so frequently attend the efforts of lesser men in their work. Alike at the Custom House, the Four Courts, the Houses of Parliament, the Waterford Court House, and his last great work, the Kings Inns (begun 1795, finished 1803), he had to contend with injustice and arbitrary interference. When the latter work was nearing completion Gandon was sixty years of age, had lived a more than usually strenuous life, and no longer felt himself equal to these constant contentions, and so relinquished the supervision of the Kings Inns in favour of his friend and some time co-worker, Henry A. Baker, a very capable architect.

Gandon himself writes of the Custom House: "Whenever Mr. Beresford was absent every obstacle was thrown in my way to interrupt the progress of the works." In 1799, according to "The Gentleman's Almanack," the Commissioners of His Majesty's Revenue in Ireland were the Rt. Hon. John Beresford, Rt. Hon. Sir Hercules Langrishe, Bart., Rt. Hon. Robert Ross, Rt. Hon. Lord Viscount Donoughmore, Rt. Hon. Richard Annesley, John Wolfe, Esq., Hon. George Knox, Charles Henry Coote, Esq., and Hon. Thomas Foster. In 1800 the works were still going on, and later, in 1803, the work was still apparently not finished, and Beresford, who had then ceased to be connected with the Board of Revenue, wrote a long letter from Bath to Gandon, sympathising with him in his difficulties about that work, the bad treatment he had received, and encouraging him to keep up his spirit. The letter indeed of a warm, kindly, affectionate friend, not the reputation that history accords John Beresford. In 1804 Beresford, again writing, this time from Dawlish, wishes Gandon "joy of being nearly done with the Board, for I have often thought of the situation you must have been in since I left it, particularly since architects much superior to yourself have got into it. What with superior knowledge in one, suspicion in a second, and jealousy in a third, malice in a fourth, and total ignorance in all, you must have been well tormented. . . . Thank God I am free from them all."

In 1805 Beresford wrote his last letter to Gandon. It is in the same strain, and concludes with a warm invitation to come and visit him. Beresford died soon afterwards, and on the fold of the letter Gandon wrote: "This was the last letter I received from my truly, upright, and most sincerely attached friend. He departed this life very shortly afterwards; a cold, which caused fever, terminated his valuable existence."

Thus the Custom House proved to be a very protracted and troublesome work for Gandon. It was, however, at length finished, and it is doubtful if any city in Europe possessed so fine a building of its sort. The view from O'Connell (formerly Carlisle) Bridge was a magnificent panoramic one; unfortunately in 1884 it was sadly marred by the erection of a hideous railway viaduct carrying the line across the river and blotting out the Custom House; one of the grossest acts of vandalism ever perpetrated in a civilised community, and wholly unnecessary, as the railway could have crossed the river lower down below the Custom House. From Carlisle Bridge could be viewed the fine prospect down the river, with the Custom House on the left. In the opposite direction the view up the river, with its subtle bend seen under a setting sun in the west, was exceptionally fine, the Four Courts in the distance looking southwards along Westmoreland Street on the right the Houses of Parliament with Gandon's fine Corinthian portico to the House of Lords, and on the left Trinity College; northwards was the noble vista of Sackville Street, with Johnston's General Post Office and the Rotunda beyond.

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J. MALTON, Junr., delt. THE NORTH PARADE AT BATH. J. GANDON, Architect, fecit.
(Publish'd March 8d, 1779, and sold by J. MALTON in Poland Street and J. GANDON, No. 48 Broad Street, Carnaby Market.)

The Custom House is perhaps placed a little too near the river for perfect beauty. A wider open space in front would have enhanced its graceful lines. The principal or river front is 375 feet long, mainly of Portland stone; the depth from north to south is 209 feet. There are four fronts corresponding to the four cardinal points. The plan, as already mentioned, is on symmetrical lines. It is open to some criticism, it was hurriedly prepared, and the several parts were subjected to alteration as the work of designing and building proceeded. It is laid out around two courtyards. The centre block between the courtyards extends from back to front, and was surmounted by the dome. In the centre of the river front is the portico of four Doric columns supporting the entablature, the frieze over being enriched with the heads of oxen connected with festoons. Elsewhere the frieze is perfectly plain, with a fine, bold result. The tympanum of this front is filled with a sculptured group, Britannia attended by Strength, Justice, Naval Power, and Victory, Britannia and Hibernia embracing each other, and holding the emblems of Peace and Liberty. These figures are seated in a marine chariot drawn by sea horses and attended by Tritons, a fleet of ships, bearing the produce of the various nations to Ireland is introduced. This is the work of Edward Smyth. The attic storey rising above the pediment bears on the skyline allegorical figures of Industry, Commerce, Wealth, and Navigation, by Thomas Banks, R.A. This peculiar fondness for putting statues on the skyline, not usually an altogether happy arrangement, seems here to be more or less justified by results. It was a very characteristic Dublin fashion, and one that lingered until about half a century ago. Above the portico comes the peristyle and dome, 26 feet in diameter, and supported by forty-six Corinthian columns, perhaps the only feature of the exterior open to criticism. From the dome, and carried down inside, rises a circular pedestal, upon which still stands the colossal statue generally described as "Hope," but sometimes as "Commerce." This figure is also by Smyth, and the height from the ground to its summit is 125 feet.

On various keystones of arches, some sixteen in number, are carved colossal heads, emblematic of the rivers of Ireland, which perhaps show Smyth's genius at its very best. I have already quoted Gandon's own hearty appreciation of their excellent design and execution. The river Anna Liffey is symbolised by a female head, all the others are male gods. It would be difficult to instance better examples of architectural carving than these, just the right degree of conventionalism, conceived in true artistic feeling.

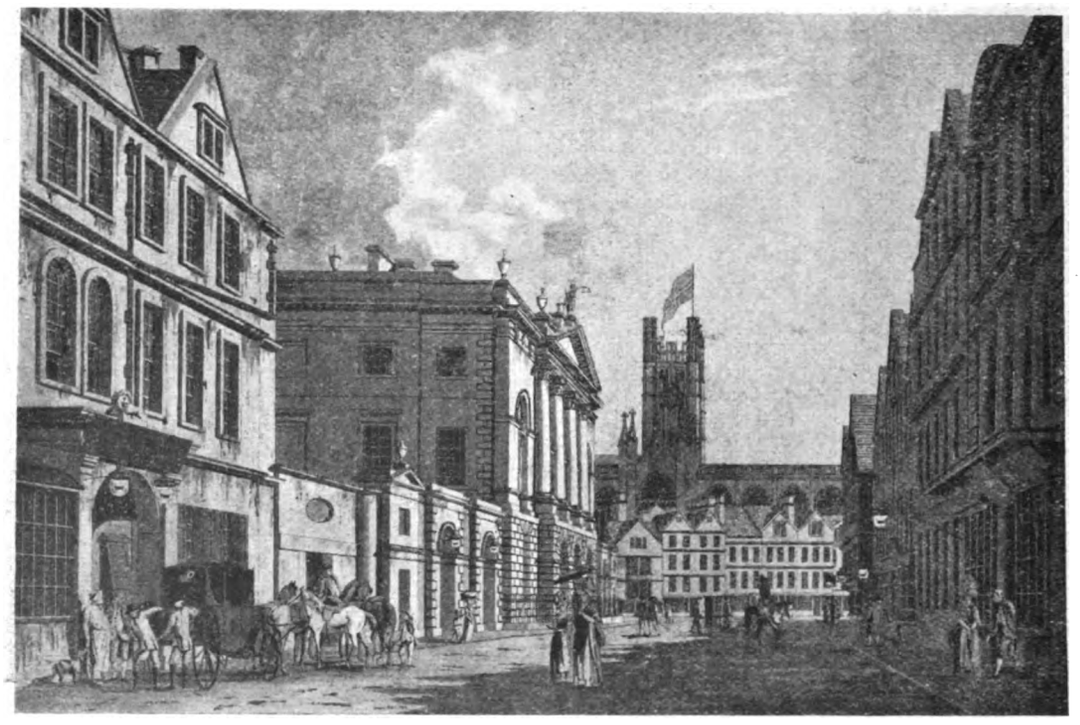
At either end of the river front are pavilions with recessed Doric columns, terminating the river façade and corresponding with similar pavilions flanking the main portico. Above the end pavilions, and like the statues, breaking the skyline, surmounting carved panels in the balustrade, are heraldic compositions of the lion and unicorn based on the British Arms. The wing walls, between the central and end pavilions, are simple but elegant. There are on the ground floor seven rusticated arches, surmounted by a single storey in which windows and niches alternate.

The north or Beresford Place front is of the same length as the river front. It is built mainly of granite, with Portland stone dressings. The centre of the north front has also a Doric portico, but without a pediment. Here are figures representing the four quarters of the globe, by Banks. By some critics, the austere simplicity and dignity of the Beresford Place front has been preferred to the more generally admired river front. It is certainly wholly admirable in its masterly arrangement of a great mass that depends for effect on perfect proportion, combined with the utmost simplicity of detail, rather than on the lavish use of ornament. The severity and restraint displayed are worthy of careful study. This façade has the advantage of a large open space in front.

The east front, facing the dock, is composed of the returns of the end pavilions of the main fronts, with a central building about ninety feet long, connected by a rusticated arcade, one storey in height, and surmounted by a balustrade. The general design of the front is elegant, and a clever treatment of the irregularity of the plan making it balance the west front perfectly.

The west front, facing towards the City, is two storeys in height, with a central feature corresponding with that of the east front. I believe this west block was originally intended to contain the Chief Commissioner's residence; but I do not think John Beresford ever occupied it, though he had a private Riding School close by, that had an evil reputation for the cruelties and tortures practised therein in 1798 on captured rebels. It is difficult to reconcile this historic reputation with the kindly, generous, warm-hearted correspondent of Gandon. The splendid family mansion of the Beresfords, in

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J. Malton, Jupr., del. THE TOWN HALL AT BATH. J. Gandon, Architect, fecit.
(Publish'd March 8d, 1779, and sold by J. Malton in Poland Street and J. Gandon, No. 48 Broad Street, Carnaby Market.)

Marlborough Street, now the Education Office, was only a few minutes' walk from the Custom House. One of the many critics of the Custom House project, of whom Lord Shannon was the prime leader, was a wag, and remarked that "John Beresford hath built himself a palace." Of that charge there is no evidence. The interior showed little signs of being designed as a residential palace. It was simple and practical, without any imposing features other than those that naturally grew out of a well-balanced plan. The entrance halls at the two main fronts were well proportioned and effective, but nothing very wonderful. The so-called grand staircase, a comparatively modest one, was considered as exemplifying the ingenuity of the architect. The steps, of stone, were ingeniously arranged. The architectural treatment of this staircase is elegant and refined; the plaster work was modelled by Smyth, from Gandon's design.

Of the many offices in the building, although some were well proportioned and simply and elegantly arranged, only a very few boasted any serious architectural features, including the old board-room on the north front, the "Commissioner's Court," a large room decorated with columns. The only room of importance was "the Long Room," 70 feet by 65 feet; an arched ceiling was supported by a double range of columns, forming a sort of aisle about 12 feet wide on either side.

The estimate for the Custom House, laid before the House of Commons, was £163,363, but the actual cost, which was increased very much by changes, and through the bad foundation, and other causes, amounted to £260,000.

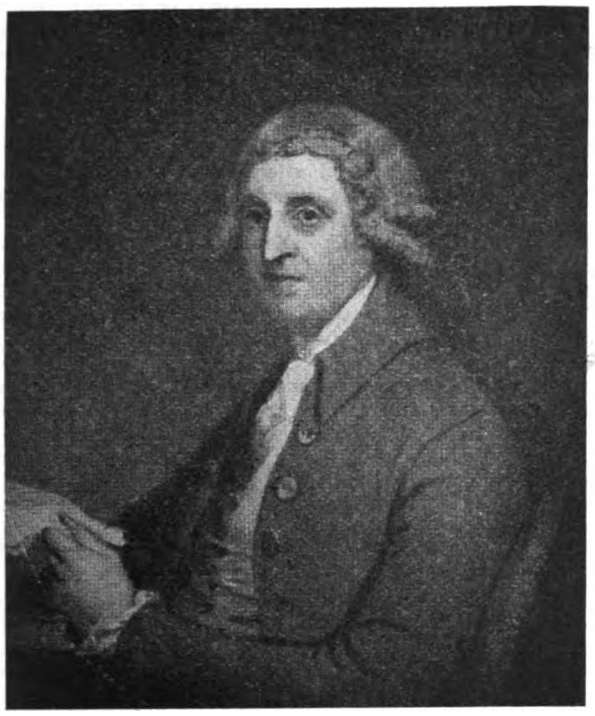
Immediately to the east of the Custom House lies the Custom House Dock, 400 by 200 feet in extent, opened in 1796 at a cost of £80,000, and there are several other docks and stores further to the east. The tobacco store and the wine store, capable of accommodating 4,500 pipes of wine, was designed by John Rennie.

Lately, through the courtesy of the Office of Public Works, I had an opportunity of going through the Custom House and viewing the ruin and destruction wrought by the fire. Every part of the interior of the building has suffered almost equally, and must have been set alight at countless points. The whole interior has been completely gutted. The outline of the building has not been altered by the fire, save the dome. The outer walls still stand; viewed from the outside they seem intact, save where the fire licked the heads and reveals of the window openings. In many instances the timber sashes and doors have escaped. Much of the stone work has been calcined by fire, and the internal surface of the walls considerably damaged. Many of the walls are much shaken. The whole interior was of a highly inflammable nature, being the old-fashioned system of timber construction, with timber studding to many of the walls; the corridors and other parts of the building were, however, brick-vaulted. In most parts these brick vaults have split, owing to the great heat of the fire. In addition to its inflammable construction, the building must have been absolutely packed with documents and stationery of all sorts, as well as great quantities of office furniture, which made perfect food for fire. There was very little steel construction, a few iron beams lying on the ground have been twisted out of all shape. The peristyle of the dome has been very seriously damaged. As might be expected, the stone stairs have everywhere failed completely when subjected to the great heat set up. The south, east, and west façades have suffered least, the north front most of all. At the time of my visit the whole place was cumbered with the fallen débris, still smouldering. Many of the Portland stone window dressings, cornices, balustrade on the north front, &c., have been so damaged as to be beyond repair. Truly a sad and desolating sight!

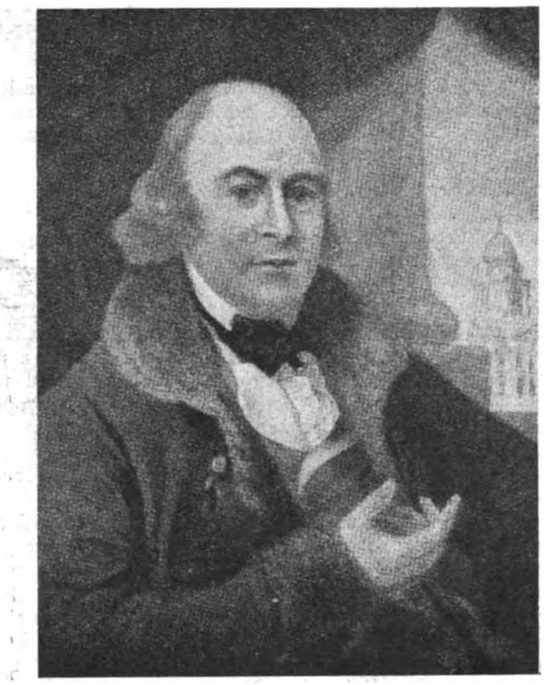
It is, however, a consolation to find the external walls still standing and preserving their outline, also that the beautiful sculpture has escaped. Gandon's Custom House, as he knew it, is no more, but it is possible to restore the outer shell, and in reconstructing it, taking care to employ fire-resisting methods of construction throughout. It is a melancholy reflection, that even if fire-resisting floors had existed the fire would, in all probability, have never attained anything like the intensity it did. This rather suggests the question, whether in other buildings of very great historic and artistic interest, and of old timber construction, something should not be done to introduce fire-resisting ferro-concrete floors, &c., rather than run such risks.

As regards the extent of restoration that would be necessary, it is impossible to speak positively without very minute examination of every part, or to say precisely how much rebuilding would be essential. It is obvious that rebuilding in parts would be required, but it is equally plain that no more reconstruction than is absolutely necessary should be undertaken—every stone of

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RT. HON. JOHN BERESFORD.
(From a contemporary engraving.)



JAMES GANDON, Architect.
(From a contemporary engraving.)

the fabric that can be conserved should be saved. The work of restoration should be approached in the reverent, conservative spirit that is nowadays generally recognised as the proper course to adopt in works of restoration of great mediæval structures. Here we have, moreover, at our command the methods and appliances of modern construction of a nature unknown to Gandon's generation, or even to our predecessors of a few years ago; notably ferro-concrete, which can be utilised to bridge over or cover wide areas, to sustain, to counterfort, and to take up thrusts.

We cannot hope ever to see Gandon's great Custom House restored to its pristine glory, but we may reasonably expect to see its form maintained in its outward semblance. Gandon's original drawings for the Custom House are still in existence and available; some are in the National Museum of Ireland, the remainder are in the possession of the Office of Public Works. In addition, there are several sets of excellent measured drawings.

After the completion of the Custom House, and before the Kings Inns were finished, Gandon, whose health began to suffer, determined to retire. He was subject to pains in his head, and to severe attacks of gout, from which he had suffered since the early age of twenty-five. Gandon finally retired to a residence, Canonbrook, near Lucan, Co. Dublin, which he had purchased, and there ended his days in peaceful retirement in 1824 at the age of eighty-two. During his retirement he continued to take a keen interest in the arts. In 1816 he addressed a long letter to Lord Castlereagh giving his views on the subject of a memorial to commemorate the late wars. He was in 1823 waited upon by a deputation of the Royal Hibernian Academy to beg him to accept membership of that body, an honour which he declined owing to his advanced years and infirmities. He wrote a number of biographical notes on artists of his acquaintance; essays on "The State of Architecture in Ireland," "Hints for Erecting Memorials," &c., &c. His son collected his notes and essays and other materials for a biography, but transferred the task of writing it to his father's friend, Thomas J. Mulvany, R.H.A., who published it in 1846. It is interesting to note that Mr. Mulvany was the father of the distinguished Irish architect John Skipton Mulvany, R.H.A., the most gifted native architect of his time.

The following is a list of Gandon's principal works:—

Royal Exchange, Dublin (design for).

Court House or County Hall and Prison at Nottingham.

Lunatic Asylum, London.

* Custom House, Dublin.

* Docks and Stores at Custom House.

Town Hall at Geneva—a gift to the Marquis of Waterford (John Beresford's brother).

* Four Courts, Dublin (begun by Cooley).

Carlisle Bridge, Dublin.

Military Hospital, Phœnix Park, Dublin (designs presented to General Canyngham).

* Portico of the Parliament House in Westmoreland Street, and additions to the House of Lords.

Various plans for alterations to House of Commons.

* Kings Inns, Dublin.

Those marked * were erected under Gandon's supervision.

THE Council of the Royal Institute of British Architects have appointed the following members to serve on the Competitions Committee for Session 1921-22: Professor Patrick Abercrombie, Messrs. W. H. Ansell, Henry V. Ashley, G. Leonard Elkington, L. Rome Guthrie, E. Vincent Harris, Arthur Keen (Hon. Secretary R.I.B.A.), H. V. Lanchester, F. Winton Newman, R. M. Pigott, William A. Pite, T. Taliesin Rees, J. Douglas Scott, Septimus Warwick, Paul Waterhouse (President R.I.B.A.), Herbert A. Welch, and W. G. Wilson. At their first meeting the Committee appointed the following officers: Chairman—Mr. W. G. Wilson; Vice-Chairman—Mr. H. V. Lanchester; Hon. Secretaries—Mr. Henry V. Ashley and Mr. Herbert A. Welch.

SIR A. MOND stated in the House of Commons, in reply to Major Prescott, who asked what reductions had been made in the housing staff at headquarters and the twelve regional organisations, said the housing staff at headquarters and in the regions had been reduced by 89, in addition to the 29 mentioned by him on June 16, or 117 in all; 220 other officers had been given notice that their services would terminate not later than September 30 next. He was not aware of any strong feelings amongst local authorities that their housing schemes had suffered financially or otherwise through over-administration. The cost to date of the departmental organisation was estimated to be equivalent to about 50*s*. per house.

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Correspondence.

Unification of Architects.

To the Editor of THE ARCHITECT.

SIR,—I beg to enclose for publication a copy of a letter sent to the Editor of the "R.I.B.A. Journal."—Yours, &c.,

SYDNEY PERKS.

The Guildhall, E.C.,
August 9, 1921.

Sir,—Amongst the members of the Royal Institute of British Architects (R.I.B.A.) there is again a growing desire to obtain statutory powers for the unification of architects.

This object it is hoped, by the supporters of the movement, may be obtained by inducing unattached architects to join the R.I.B.A. so that the Institute may be in a position to represent the whole profession when a Bill is to be laid before Parliament. In the meantime it is proposed that the Institute should amend its by-laws and apply to the Privy Council to have its Charter revised so that the doors of the R.I.B.A. may be thrown wide open for all unattached architects to enter.

However desirable unification may be, it is regarded by others that the proposed method of opening the doors is not the right course to secure this end, for in the event of failure to obtain a Bill the status of the Institute would be lowered without any compensating advantage.

A Committee of Fellows of the Institute has been formed to consider this important subject. Mr. A. W. S. Cross, Vice-President R.I.B.A., has been elected Chairman, Mr. H. D. Searles-Wood, Vice-President R.I.B.A., Vice-Chairman, and the undersigned as Hon. Secretaries.

This Committee has come to the unanimous decision "That until a Registration Act has been obtained no real unification of the profession is possible, therefore they are of opinion that no change should be made in our Constitution with regard to unification until a Registration Bill is passed."

We should be glad to hear from Fellows, Associates, or Licentiates upon this matter as well as from unattached architects who may chance to see this letter.

Yours obediently,
(Signed) SYDNEY PERKS,
Guildhall, E.C.
(Signed) GEORGE HUBBARD,
112 Fenchurch Street, E.C. 3.

A Paint Feud Revived.

To the Editor of THE ARCHITECT.

SIR,—With the approach of the Third International Labour Conference, which is to assemble in October, we may anticipate a renewal of the controversy—so fiercely debated ten years ago—respecting the use of white lead in paints; for Item VI. on the agenda embodies a proposal that such use should be prohibited by all nations that are members of the permanent labour organisation.

Some of the protagonists who took a leading part in the last controversy will doubtless re-enter the lists on the present occasion. In some instances, perhaps, Time will have brought its lessons, and the opinions expressed with such finality then will now reveal some modification. My purpose in writing is to urge that however secure controversialists may have felt as to their views in that historic battle, however little they may feel open to correction even now, they should not overlook the progress that has latterly been made in medical science, in industrial hygiene, and in technical matters relating to the painter's craft.

One consideration, which indeed was not lost sight of in 1911, though it then received too little attention, has now, in our present industrial outlook, become a matter of some gravity. I refer to the effect of the Labour Office proposal on the mining and white-lead industry. At the height of his prosperity a man may suffer a considerable loss and be little incommoded. But when he is on the verge of bankruptcy, being heavily taxed and severely torn by internal disorders, the subtraction of even a minor asset may precipitate collapse.

But, leaving that aspect of the question, there remains the duty of taking stock of the new light on this old controversy shed by science and experience. There is, for instance, the remarkable paper read by Sir Kenneth Goadby recently before the Royal Society of Arts, in which one who is perhaps the leading authority on industrial sickness, claims that much so-called lead poisoning is sickness attributable to other causes which the Geneva proposal would leave untouched. There is the useful suggestion that a simple test should be applied to would-be entrants to occupations involving risk of poisoning, with a view to excluding persons who are specially susceptible; just as we exclude from appointments in tropical climates, and from responsible jobs like that of the engine driver, persons physically unequal to the strain.

Again, so extraordinary has been the shifting of incidence, owing to increased attention to hygiene, in trades formerly regarded as dangerous, that we have here new data to examine. Scrutiny of the mortality figures in the potteries and white-lead industries shows how radical a change has been wrought by regulation and the education of the worker Mr. Edward J. Cornish, President of the Raw Products Section of the International Chamber of Commerce, whose proceedings have just terminated, stated that owing to the precautions now taken in one of the largest lead factories in America, the particular operation which was once the most deadly, is now, as is proved by statistics over a lengthy period, "the healthiest job on the plant."

The International Labour Office has been severely criticised in influential quarters for proposing for discussion at the October Conference, not "What shall be done to protect the painter from the perils of his craft?", followed by the gathering of information from every quarter, so that the Conference might draft a Convention that would do the maximum good with the minimum harm; but the prohibition of white lead, heedless, apparently, of the economic repercussion of so drastic a course. It has, in short, taken sides where it should have merely assembled the facts. And it is alleged to have adopted methods not in all cases entirely above board, to sway opinion in its own favour.

A more reasonable course would seem to be that before recourse is had to such root-and-branch methods, less drastic alternatives should be tried. Prohibition of the use of white lead, if Sir Kenneth Goadby and others are to be believed, will not eliminate painters' sickness; by creating false security it may even aggravate that amount of it which is due to causes other than lead; while, according to specialists, like Professor Armstrong, it will certainly lower the prestige of the British painter's craft, will increase the cost of painting to property owners and others, will jeopardise the savings of many widows and children through the collapse of the lead industry and the lead mines, and will give impetus to Continental trade rivals.

But whatever our personal opinion, let it be borne in mind that this is not a fight against manufacturers greedy for gain regardless of the life and health of the worker; that is a fiction which agitators with ulterior motives will alone desire to maintain. It is rather a controversy of which good sense and mutual respect cannot fail to find an equitable solution.—Yours, &c.,

"AUDI ALTERAM PARTEM."

Re Ex-Service Men.

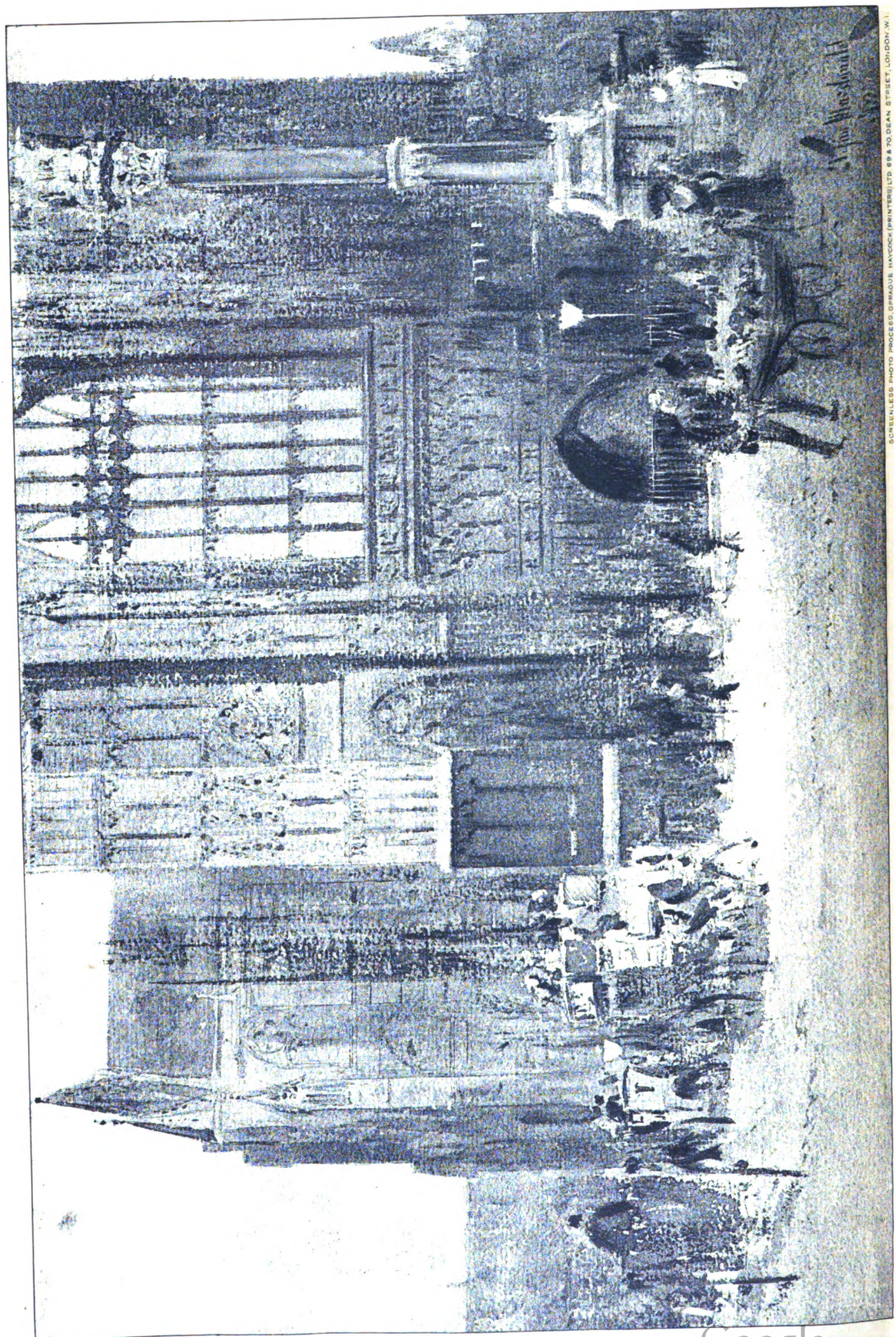
To the Editor of THE ARCHITECT.

SIR,—Noting the great interest you take in ex-Service men, may I make a suggestion whereby numbers of men could be employed on work I am sure they would take the greatest interest in, that is, the war grave stones now being done all over England by different firms, and I know that a considerable amount of money is being made out of them. For instance, if the Government turned one of their numerous places they have at their disposal, fitted it up with frame saws and rubbing beds (bankers' masons), &c., they could very quickly absorb a few thousand men who could, if the distance is too far from home, be accommodated in huts and be fed in canteens at a small cost, every man paying for board and lodge. Of course you must know how simple these stones are to work, the tops are simply rounded which any man with any sense at all could be taught to do in a few hours. Then the badges are all printed and transferred to stone, and I will undertake to say that intelligent men could cut one with a month's practice. There are several hundred thousands more to do, about eight years' work, and I myself, as an ex-Service man, contend that these men are the men who should do them. There would not be much trouble to find men to instruct; I myself would make one, and could find dozens of others. Also I think that a lot more could be employed in woodwork, making desks, forms, cupboards, &c., that are now done by private firms. I should be delighted if you would give this matter your consideration, and if you think it worth while to publish this I am sure it would at once be pushed forward. Unfortunately I am compelled to belong to a union, so would not like my name mentioned until something was done in the matter. Hoping this will meet with approval.—Yours, &c.,

A CARVER.

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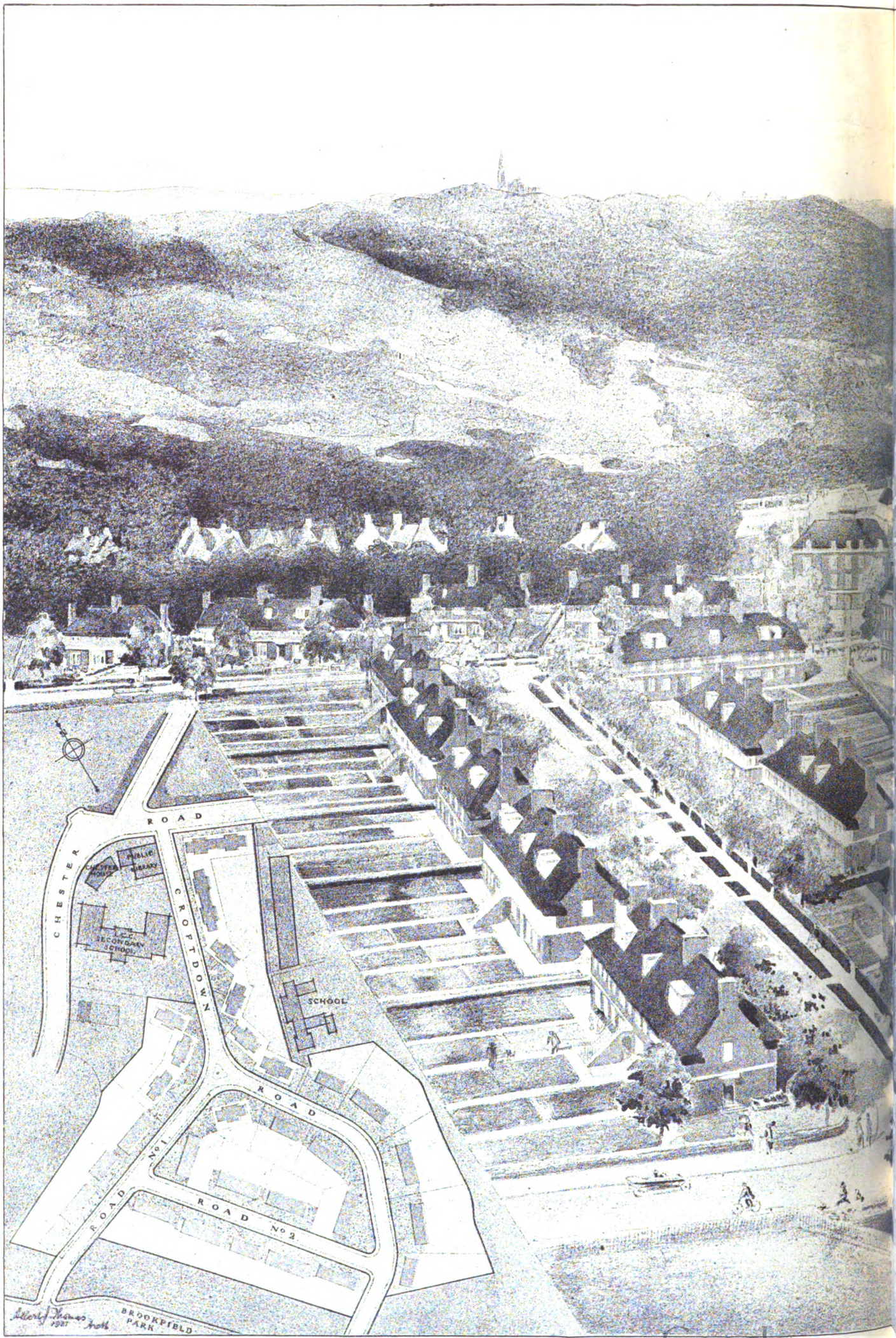
CHURCH AT WINKSLEY, NEAR RIPON.

MESSRS. CONNON & CHORLEY. ARCHITECTS FF.R.I.B.A.

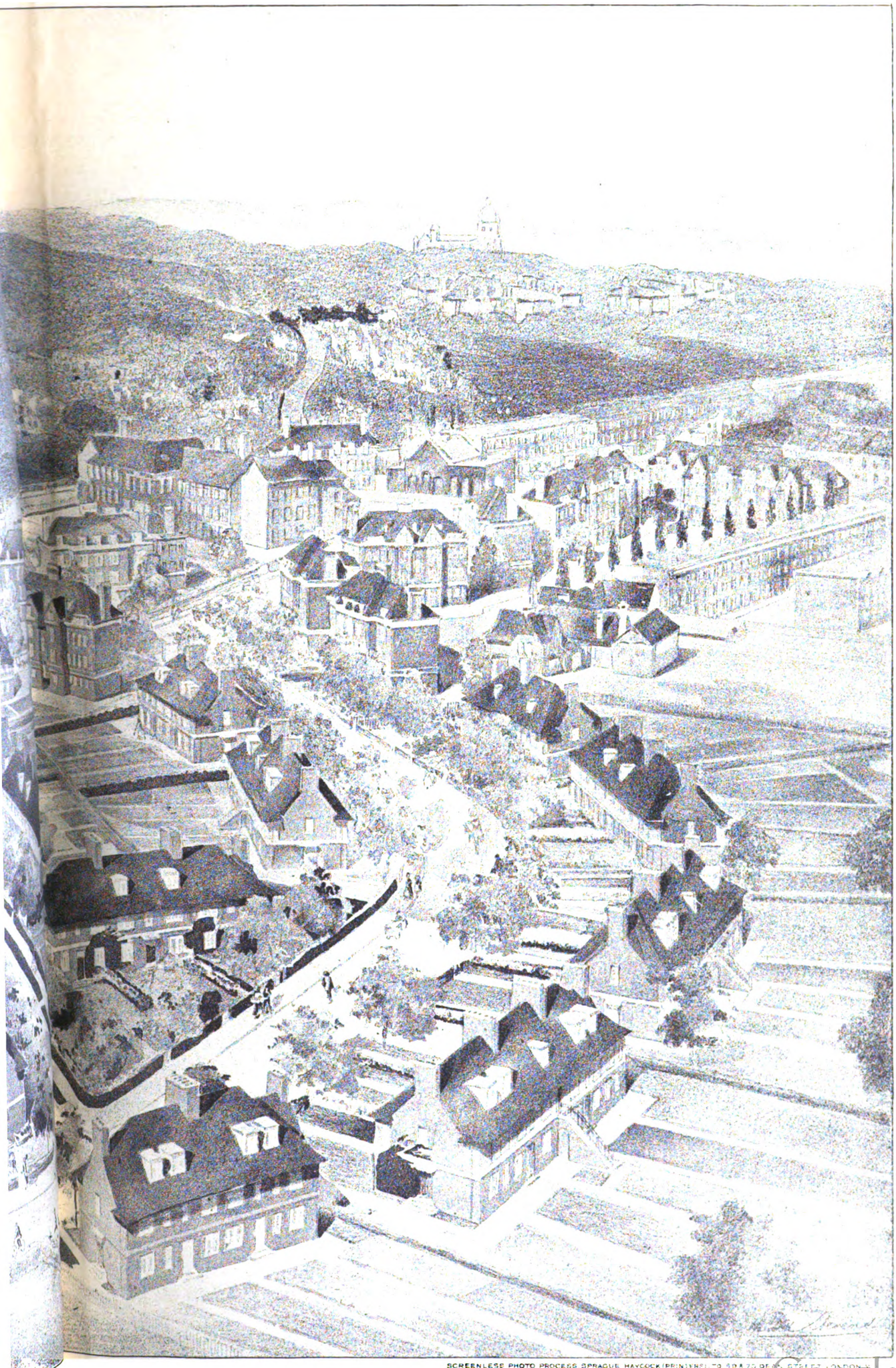
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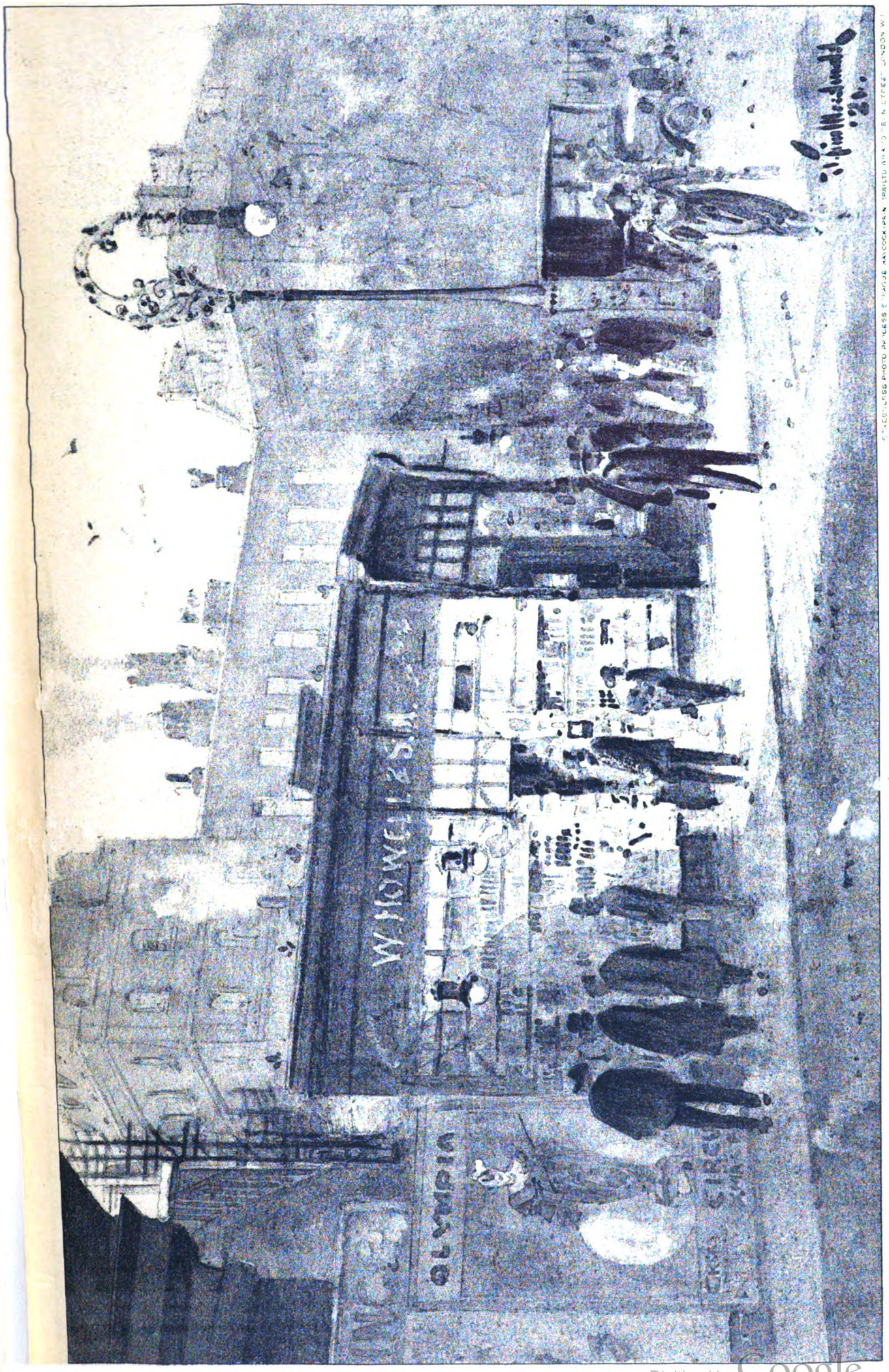
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Rubbing Down of Paint.

Can a Perilous Practice be Dispensed With?

THE rubbing down of paint has come in for considerable discussion recently in connection with the use of white lead. It has been suggested that, in order to eliminate the risk of lead-poisoning amongst painters, it is necessary to abolish the use of this material. In view of the recognised value of white lead as a pigment, however, searching investigation has been made into the possibility of restricting its use to conditions under which the risk of poisoning is remote.

By these investigations a good deal of fresh light has been thrown on the subject of lead poisoning, and it has been clearly established that by far the most fruitful source of mischief is the dust produced by the dry rubbing down of old paint. The fine dust so formed floats in the air, and is readily absorbed in breathing. Dr. Legge, H.M. Chief Inspector of Factories, goes so far as to state categorically, in his report for 1918, that "it can be taken as axiomatic that all risk lies in inhalation of dust or fume. These removed or prevented, there would be no lead-poisoning."

It would seem, therefore, that the drastic step of abandoning white lead should be unnecessary, provided this difficulty of the production of dust can be overcome. There is no danger from white lead in the handling of wet paint of which it is an ingredient.

As a matter of fact, paradoxical as it may appear, the disuse of white lead in paint would almost certainly have the effect of actually increasing the danger of lead-poisoning, at least, for a considerable period. If the prohibition came into force to-day that would not alter the composition of paint used yesterday, neither would it obviate the necessity of preparing old paint for repainting. For many years to come old painted surfaces, painted with lead paints, would remain to be dealt with in this way. The chief and almost only source of lead-poisoning—the dust produced in rubbing them down—would therefore continue to be prevalent, whilst the painter, secure in the assurance that all danger of poisoning was removed, would naturally take no precautions. But, by abolishing the practice of dry rubbing down we should, if Dr. Legge is to be believed (and he has probably more experience on the subject than any man living), free the painter from risk forthwith.

In short, to be really effective the abolition of white lead must be accompanied by the abolition of dry rubbing down. Common-sense would, therefore, suggest exploring the possibility of discontinuing the practice of dry rubbing down, thereby abolishing all risk of lead-poisoning. The proposal is that all rubbing down should be done wet. In some classes of work, such as flatting of varnish, this course always has been followed, the surface of the paint being wetted and rubbed down with a solid felt rubber or damp rag, dressed with finely powdered pumice. This produces a very good surface, and, whilst it is not so convenient for all purposes as sandpapering, is capable of much more extensive use than at present by trial of different cutting powders for different classes of work.

As regards the rubbing down of old plain painting, at any rate the consensus of opinion amongst practical painters is that pumice stone and water could entirely supersede dry rubbing down, without causing any difficulty. The preparation of new work by rubbing down between coats offers a little more difficulty, but experiment has shown that the use of sandpaper moistened with a light mineral oil produces a satisfactory job without the formation of any dust. Whilst some painters contend that it is difficult to operate in this way, there seems little doubt that experience and practice would render it as simple as the use of dry sandpaper. The rubbing down of a newly painted surface is, moreover, quite a minor source of dust as compared with the rubbing down of old work, in which the paint has hardened and become brittle throughout, so that it readily breaks up into dust. This is the main danger, a danger which could be entirely obviated by wet rubbing down, whilst it would not be removed for some ten years or so by abolishing the use of white lead.

New Books.

"Engineering Construction." By H. W. Warren. Part I. In Steel and Timber. 30*s*. net. Part II. In Masonry and Concrete. 36*s*. net. (Longmans, Green & Co.)

THIS is an elaborate and advanced treatise of nearly a thousand pages, and the author, who is Professor of Engineering in the University of Sydney, gives a wealth of theoretical and practical information which is suitable not only for the advanced student, but for the practical engineer responsible for structural design. Volume I. is the third edition of the author's previous work, and Volume II. will be welcomed as dealing with modern developments in connection with concrete structures.

Opening with some eighty pages on the physical and mechanical properties of iron, steel, and timber, chapters follow on determining stresses, bending moments, moments of resistance, and the like. Graphic and algebraic treatments are given, and some useful tabular data, more particularly on the strengths of Australian timbers. A short chapter on timber bridges is followed by a comprehensive account of trusses and girders with the aid of graphic statics. A chapter on columns containing a mine of information in thirty pages is followed by one on riveted joints and joints in timber, and, after considering wind-pressure, bridge construction occupies the second half of the volume, which includes chapters on swing arches and suspension bridges.

Part II. will probably have a wider appeal to most of our readers. Stress and strain in brick and concrete are compared with those in steel, and earth-pressure on retaining-walls and in tunnels is next considered. A chapter follows on limes, cement, and mortar, and then on brickwork, the author citing very careful tests of his own and other tests, including those of the R.I.B.A. Science Committee on brick piers. His tabulated results are of great interest, and the conclusion drawn that good brickwork in cement will carry a safe load of 15 to 20 tons (American ton 2,000 lb.) per square foot, and work in lime mortar 9 such tons is worth thought, for this means that for usual foundation widths few architects would care to stress most of the soils up to what would correspond to more than the latter figure on walls; hence why not use lime mortar and save outlay, not so much in material as in the time of the bricklayer? A point made by the author, and new to us, is that the most effective combination of brick and mortar is obtained with similar elasticities in both materials, which, with many bricks, would again seem to favour lime. A short account of building stones and clay is followed by a résumé on concrete, after which reinforced concrete and its uses in beams, columns, and floors is fully developed and worked out structurally. Retaining walls, grain bins, high masonry dams, concrete arches, and foundations are then considered in separate chapters, the last including a description of heavy foundation work and its requirements.

We can confidently recommend this work to serious students and practical men, who will find it a valuable work of reference and guide in structural calculations.

A. E. M.

THE dispute in the Belfast building trade, which has lasted seven months, has been settled by the Ulster Ministry of Labour.

THE Engineers' Club, the membership of which already exceeds 2,200, has acquired the premises in Coventry Street and Whitcomb Street, formerly occupied by the Road Club. The club is intended to be the London home of the British engineering profession; architects, chemical engineers, and metallurgists being also eligible for membership. Mr. E. Manville, M.P., is the president, and Mr. E. L. Hill the honorary secretary. The club will be opened on Thursday, September 1.

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Royal Archæological Institute.—I.

Summer Meeting at Gloucester.

The Summer Meeting of the Royal Archæological Institute of Great Britain and Ireland opened at Gloucester on July 11. Following the practice initiated last year, a combined meeting was arranged with the local archæologists—this time with the Bristol and Gloucestershire Archæological Society. This method has no doubt many advantages in the matter of organisation, but it rather appears as if both "locals" and "foreigners" have to make concessions when drawing up the programme. In the present case, for instance, an entire half-day was occupied in a visit to Burford, a town (thirty miles distant from Gloucester) which must have been already familiar to most of the members of the Royal Archæological Institute, who spent some hours there in 1910, but which was new ground to the provincial society. Moreover, out of consideration to the latter, interesting places had to be passed by because they had been more or less recently on previous local programmes. The troubles attendant on organising for a party very considerably over a hundred strong must have been already so many that we would hesitate to add to them by the suggestion that on future similar occasions there might be an occasional alternative excursion. Another consequence of these joint meetings is that the area to be visited must be made rather wide; this involves long rides in motor conveyances, and, generally, a strictly limited pause at the various destinations. The question then arises as to how much of such pause should be assigned to addresses by the cicerones and how much to individual inspection by the party. When the guide happens to have made an exhaustive study of his subject, whether castle, church, manor house, or earthwork, he may be pardoned for wishing to lay the fruits of it orally before the visitors. But unless this be done with the sacrifice of much detail it is apt to absorb too large a proportion of the minutes allotted on the time-table to each building. Before the meeting opens each member receives an elaborate and most invaluable programme, giving a specially written account of every place to be visited. But the printed word necessarily lacks the direct force which belongs to the word spoken by a guide known to be a master of his subject. Therefore the only compromise seems to be for the cicerones to practise heroic restraint and to cut their remarks according to the time-allowance.

The Summer Meeting at Gloucester was a very real success: perfect weather, an interesting itinerary, much wonderful scenery, most comfortable motor chars-à-bancs, and all practical details working smoothly. For much of this the credit must be due to Mr. Roland Austin, the Hon. General Secretary of the local society. Behind him he had the long experience of Mr. G. D. Hardinge-Tyler, C.B.E., M.A., F.S.A., the Hon. Secretary of the Royal Archæological Institute. Only Mr. Austin can tell the amount of time and trouble this Monday to Saturday gathering involved. Sir Henry Howorth, K.C.I.E., D.C.L., F.R.S., F.S.A., the President of the Royal Archæological Institute, was again the official father of this large party, and happily voiced our appreciation and admiration of the many kindnesses received from owners of fine houses, rectors of parish churches, and indefatigable local officials.

First Day.

The morning was devoted to the annual general meetings of the two bodies at the Guildhall, Gloucester. The seventy-ninth annual report of the Royal Archæological Institute reported a net gain of five members and a credit balance of £184. The difficulties in the way of publishing the "Archæological Journal" were now gradually being surmounted under the editorship of Mr. A. Hamilton Thompson. The volume for 1916 was issued during the year under review, that for 1917 had just been printed, and it was hoped that the volumes for 1918 and 1919, for which all the material was available, would appear during the next twelve months. In these circumstances, therefore, it should be possible rapidly to overtake all arrears and to return to the position as it was before the war.

In the afternoon the members of the Society and the Institute assembled in the Chapter House, where the Dean, Dr. Henry Gee, D.D., F.S.A., gave a short description of Gloucester Cathedral. The first and experimental phase in its history ended in 1022, when Cnut introduced Benedictine monks here. But they did not flourish very much, and were re-established in 1058 by Aldred, Bishop of Worcester. Later William the Conqueror and his successors became the patrons of the monastery. By the end of the fourteenth century the abbey was deemed by the Pope worthy of having a mitred abbot. Under Henry VIII. the old house of St. Peter was dissolved, it then became the cathedral church of the Holy and Indivisible Trinity, and its third phase was entered upon. So much of its property was, however, confiscated that Henry was said to have taken away the body of the goose and left only the giblets. Successive Deans and Chapters in the main subsequently did the best they could with imperfect means and small resources. The fabric, said Dr. Gee, has remained very largely what it was when the Dean and Canons first entered into possession in 1541. After alluding to the Norman, Early English, and Decorated portions of the fabric, Dr. Gee said it was at Gloucester Cathedral that the Perpendicular style was first invented. From the new south transept (1330) the glory spread all over England. It was to be found at Gloucester one hundred years before becoming universal in this country. The Lady Chapel (1457-98) was their latest structure; after that there was very little to show. Many problems existed in connection with the cathedral. One was the old one of the relation of the crypt to the rest of the fabric above; some authorities contend it belonged to an earlier church. Another was as to how far the great Norman abbot Serlo (1072-1103) was able to carry out his scheme: it was sometimes said that practically all the Norman work was by him. Constructional experts and others would find special problems of their own. One of the most daring things in mediæval architecture was the way in which the magnificent tower is raised on its slender supports.

After this preliminary description the visitors were divided into parties and conducted over the cathedral by four guides. Believing that "there is nothing like leather," the writer manœuvred so as to make the tour under Mr. F. W. Waller, who succeeded his father, the late Mr. F. S. Waller, some twenty years ago as architect to the Dean and Chapter. [It may be mentioned that a third generation, in the person of Major Noel Waller, who is now working in his father's office, was another of the guides.] On leaving the rectangular Chapter House, inspection was first made of the remarkable cloisters, which were completed by Abbot Frocester about 1400. In the Novices' Walk, on the north side, the marks for such games as Blind Man's Morris and Checquers, still to be seen scratched on the stone wall bench, were noticed, as also the way in which the Norman walls have been faced with a Perpendicular casing. It is from this Novices' Walk or north cloister that the unusually perfect lavatory is entered by eight tall arches. Half its width is taken up by a broad ledge on which stood a lead cistern feeding a row of taps; in front was the lead-lined trough at which the monks washed their faces and hands. On the opposite side of the walk is a deep recess, where towels were hung. The south cloister has twenty shallow carrels or studies looking on to the garth. A particularly fine view of the central tower is to be obtained from the furthest corner of this garth, and here Mr. Waller pointed out the many varieties of stone, including red sandstone, Bath, a little Caen, and a great deal of Painswick, utilised for the cathedral. The party then entered the nave. In referring to the scorched surface of the great nave piers, Mr. Waller expressed his belief that it was caused by the original flat wooden roof catching fire and falling to the ground. It was replaced by an Early English roof of stone. Mr. Waller then conducted his party to various parts of the building and gave much information at each point.

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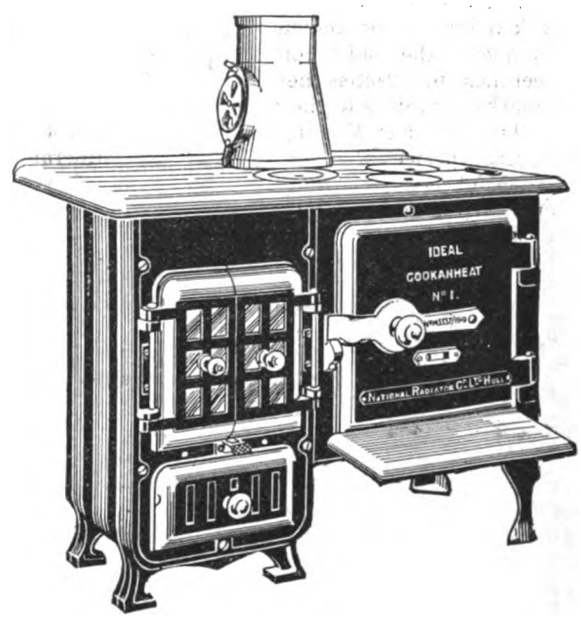
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Later there was an afternoon service in the Choir, at which many took part, and it was followed by tea in the Chapter House on the invitation of the Dean.

Second Day.

On the opening day, which was devoted to Gloucester Cathedral and to an illustrated evening lecture by the Dean at the Guildhall, there was no need for vehicles. These latter indispensable aids to the present-day archæological excursionist made their appearance the next morning and proved to be superior in comfort and reliability to those used on any previous Summer Meeting of the Institute. As the thread on which the places to be visited steadily tends to lengthen, this matter of comfortable locomotion is of very real importance. The organisers at Gloucester further helped towards the general pleasure by stipulating that members should throughout the day return to the char-à-banc and seat which they had selected before setting out from head-quarters—the Bell Hotel.

Deerhurst.

The first outing was to Deerhurst Church—a building which is familiar, at least by name, to all architectural students as a striking example of Saxon work, and all that survives of a religious foundation of considerable wealth and importance. The first mention of the monastery was in 804, when Ethelric gave land on condition that he was buried in that minster. But it was never on a big scale at any time up to its appropriation to Tewkesbury Abbey in 1469. After the suppression the whole of the building west of the chancel arch became the parish church. Mr. A. Hamilton Thompson, F.S.A., who described the church, said that in Saxon times it consisted of an apse at the east end, two transept chapels with probably a tower at the crossing, a nave without aisles and a western tower. The present arcades were cut into the Saxon walling early in the thirteenth century when the present aisles were added. The most interesting feature is the narrow four-storied tower at the west end which, as seen to-day, is of two dates and includes a great deal of pre-Conquest work. Unlike many of the early towers, as that at Brixworth, this was not a mere porch heightened into a tower but was from the first a tower. The ground floor and first storey are divided into two parts by an original cross-wall. From the eastern chamber of the first floor there are, towards the church, a small triangular opening and a doorway, now blocked, from which a wooden stair probably led down into the nave. The chamber above has two unique openings with triangular heads (divided by a square pier with fluted ornament imitating Roman work) which look into the church. Mr. Thompson favoured the idea that these towers were erected primarily to serve as bell towers rather than as places of defence. It was, he thought, quite possible that here at Deerhurst one of its storeys, which has an opening on the western face large enough for a door, may have been used in connection with the Saxon monastery—perhaps a private room of the abbot from which he could look into the church. The carved Saxon font was reassembled in 1870—part of it being recovered from a church in Worcester. When the apse was destroyed as also the eastern tower over the crossing is unknown. The seventeenth-century arrangement of the communion rails so as to enclose the altar still remains. The house adjoining the church on the south-east, where a mediæval cloister stood, is largely of the fourteenth and fifteenth centuries.

Chapel of Odda.

About 100 yards west of the church stands a black-and-white sixteenth-century house, known as "Abbot's Court," which, though picturesque enough in itself, primarily owes its importance to the fact that a pre-Norman chapel is incorporated in it. Until 1885 this chapel was used as part of the farm buildings without any consciousnesss that it had been meant for a very different purpose. It has now been identified with the *regia aula* built by Odda and dedicated to the Holy Trinity in 1056. Odda was the senior of two or three brothers who were kinsmen and adherents of Edward the Confessor. The dedication stone, which was dug up in 1675 and is now in the Ashmolean Museum at Oxford, sets forth in Latin that "Odda, the Duke, ordered this royal hall (basilica) to be constructed and dedicated in honour of the Holy Trinity for the soul of his brother Elfric who was taken up from this place. Ealdred the Bishop dedicated the same on April 11, the fourteenth year of the King of the Angles." Another stone discovered in the chimney-stack of the house may have been the dedication stone of the altar. The chapel consists of an aisleless nave 16 feet wide and with walls 17 feet high; the chancel is 14 feet wide and 11 feet high; the extreme exterior length is 46 feet. The details of the doorways, chancel arch, and curious double-splayed windows are in keeping with the eleventh-century date. Mr. Thompson thought that the nave may have been divided internally into two storeys, as was not uncommon in later times—the upper portion being occupied by the master and his family, the lower by the servants.

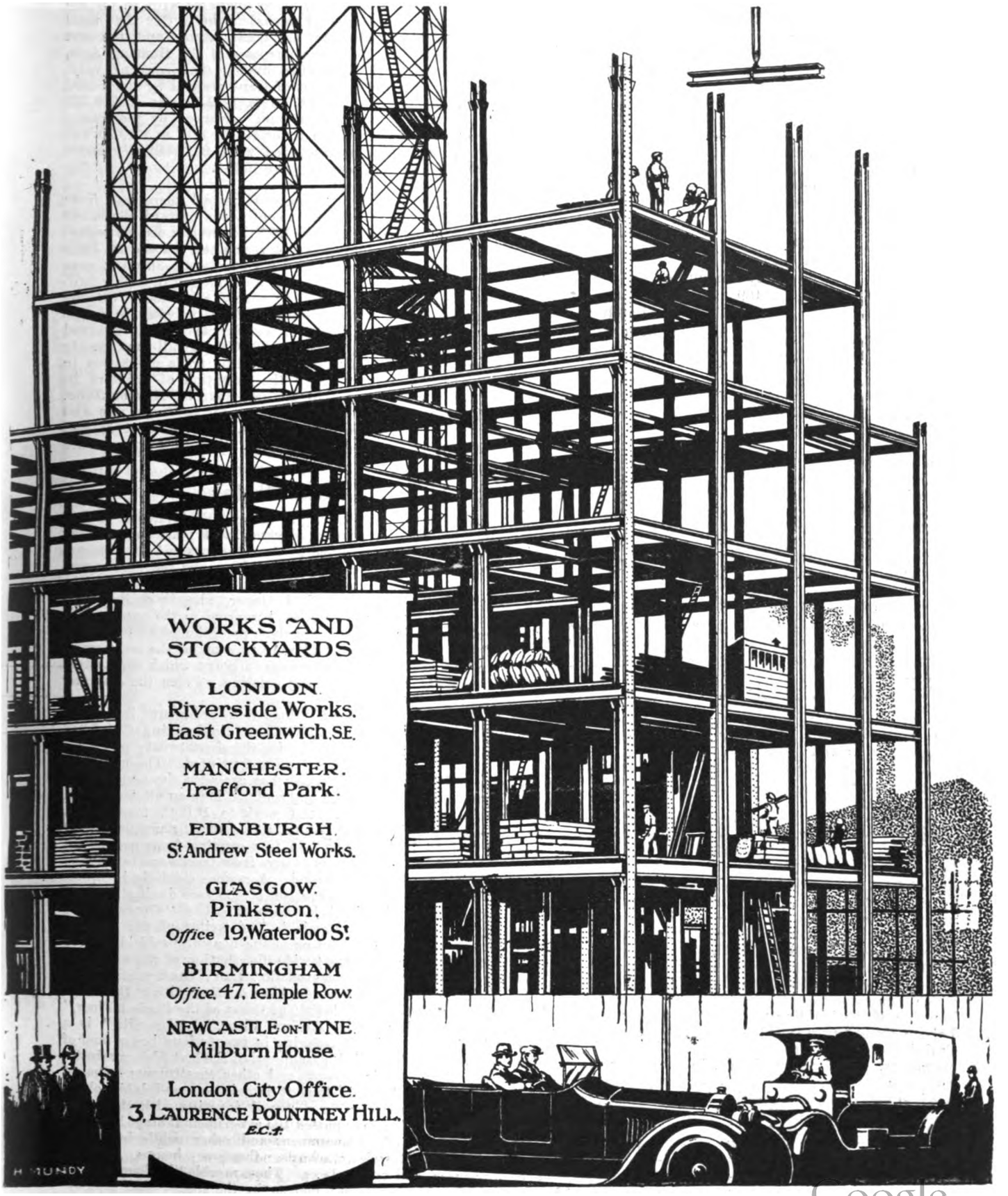
Tewkesbury.

A short run of four and a-half miles brought the party to Tewkesbury, where, though numbering well over a hundred strong, they were entertained to an elaborate luncheon by invitation of Mr. F. W. Godfrey (local secretary) and Mr. Charles Frankiss. In the anxiety to show courtesy to our hosts the party arrived before schedule time and before preparations had been completed—so that many precious minutes were wasted in waiting.

After luncheon a move was made to the magnificent Abbey. A Saxon monastery, said to have been founded in the eighth century by two elusive people called Oddo and Doddo, existed at Tewkesbury. But its history is most obscure. The present church is that of the monastery founded under the auspices of Robert Fitz Hamon, the first Norman Lord of Gloucester, to which an abbot and monks migrated from Cranborne in Dorset about 1102. Fitz Hamon died five years later. In 1121 the eastern portion was consecrated; the nave may very likely have been finished at the same date, while the central tower was probably completed during the following quarter of a century. The whole work occupying an unusually short space of time. In plan and in respective elevations of presbytery and nave the church bore a close resemblance to the sister church at Gloucester ten miles away. According to Mr. Hamilton Thompson western towers were designed at the ends of the nave aisles, but were never completed, and the poor turrets on either side of the lofty arch, which fills the whole height and width of the west front of the nave, appear to have been substituted for them. During the first half of the fourteenth century the ambulatory of the apse was remodelled and surrounded by a beautiful ring of new chapels. To this period belong most of the stained glass in the clerestory windows and the magnificent series of monuments. The tower and nave were vaulted during the second half of the fourteenth century. This display of stained glass is one of the most important in England. The splendid and historic monuments at the east end are in almost overwhelming profusion, and offer inexhaustible opportunities for sketching and measuring some of the finest work to be met with in the country. At the suppression in 1539 the annual revenue amounted to nearly £1,800; the church was purchased by the town, and the eastern, or conventual, part became the parish church: the nave, which had hitherto been used for that purpose, falling into disuse. In 1582 the detached bell-tower standing north-east of the church was turned into the county gaol, but was finally demolished in 1817. A similar campanile still stands north-west of Chichester Cathedral. The small remains of the cloister shows that when rebuilt between 1400 and 1410 it closely followed the cloister at its fellow-Benedictine monastery of Gloucester. Practically all the abbey buildings have now vanished—the principal exceptions being a fifteenth-century entrance gateway and a portion of the abbot's residence, with a charming oriel.

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The streets at Tewkesbury contain a number of remarkably fine timber-framed buildings of the fifteenth and sixteenth centuries. Indeed, so many were its attractions that the writer has to confess that they prevented him from taking part in the short run to Bredon, the last item of the day's programme, where a very interesting church and a fifteenth-century tithe barn were to be seen. Those who remained in Tewkesbury were enabled to make a thorough inspection of The Cross (or Tolsey) House, which is an object-lesson in skilled and sympathetic restoration.

(To be continued.)

General.

THE Epsom War Memorial Committee have accepted the design by Captain W. H. Hatchard-Smith, A.R.I.B.A., the work is to be put in hand at once and completed by November.

THE surveyor to the Hemsworth Rural District Council has prepared a scheme for the provision of Council offices at a cost of about £10,000. Hitherto the authority has been using premises belonging to the local Board of Guardians.

MESSRS. JAMES WILLING, LTD., newspaper advertisement contractors, whose premises have been acquired under the Strand widening scheme, have just removed to 30 King Street, Covent Garden, W.C. 2.

THE Darfield Urban Council have accepted the tender of Messrs. J. Lister & Co., of Doncaster, for the erection of 149 houses on the [illegible] Darfield, provisionally upon the approval of [illegible] Health.

THE Oxfordshire County [illegible] week approved a scheme for building a new bridge at Goring and Streatley. The cost, about £31,000, is to be borne as to 30 per cent. by the Oxfordshire and Berkshire County Councils and as to the remainder by the Ministry of Transport.

MR. J. G. BURRELL, Lic.R.I.B.A., asks us to announce that he has moved from his offices at Market Place Chambers, Durham, to Crossgate Chambers, 70 Crossgate, Durham, to which address all correspondence should be addressed in future.

A NEW cinema is to be provided at Balby, near Doncaster. The contractor for this work is Messrs. Swift Bros. & Haslem, of South Elmsall. The cinema will hold about 900 people, there being no balcony. It will be a very comfortable picture theatre when completed, the architect being Mr. P. A. Hinchliffe, F.R.I.B.A., Barnsby.

THE Glasgow Corporation Committee in charge of the Ideal Homes Exhibition to be held in the Kelvin Hall from September 19 to October 8 have decided to hold a class for amateur beginners in connection with the photographic competition. Special awards will be given, and entries will not be judged from a point of view of photographic technique, but from choice of subject, environment, and personal merit.

A VARIATION in the rate of wages of building trade operatives in Scotland consequent upon a variation in the cost of living took effect on August 1. The National Wages and Conditions Council have decided there should be a reduction of 1*d.* per hour on and after August 1 a further reduction of ½*d.* per hour on and after September 1. The standard rate for joiners on and after September 1 will be 2*s.* 0½*d.* per hour.

THE Manchester City Council have adopted a recommendation by their Waterworks Committee to the effect that the northern portion of the Ribble water syphon, in all 4¼ miles of reinforced concrete pipes, should be built at a cost of £206,023. This is part of the fourth pipe line from Thirlmere Reservoir. Reinforced concrete pipes are to be used because there is less danger of incrustation in them than in cast-iron pipes. The expenditure was sanctioned under the Acts of 1914 and 1920.

DR. MACNAMARA, the Minister of Labour, stated, in the House of Commons, that on July 15, the latest date for which figures were available, the number of men in all branches of the building trade registered as unemployed at Labour Exchanges was 132,271. Of these about 42,000 were skilled and about 69,000 unskilled. The remainder were operatives, skilled and unskilled, in subsidiary trades. He was not able to say how many ex-Service men were included, nor how many had been absorbed in the industry, but 21,355 ex-Service men had applied for training.

THE Bishop of Exeter has addressed a letter to the diocese appealing for support of his efforts to delay the sale (which is fixed for August 19) of Littlehempston Manor House, near Newton Abbot, a fourteenth-century building. The clergyman in occupation, who is a very poor man, wishes to be freed from the responsibility of maintaining it. The Bishop writes: "This priceless relic of antiquity is to be sold for the residence of a smallholder. It would be most inadequate, and he would be almost certain to pull it down or alter it to make it fit for a modern residence. I am hoping that pressure may be brought to bear on the Board of Agriculture so that they may withdraw the house temporarily from sale, and that meanwhile some efforts will be made to buy it and use it, perhaps, for some sort of museum."

DURING the financial year ended March 31, 1921, the Public Works Loan Board approved loans amounting to £61,643,748—namely, £55,088,438 out of the Local Loans Fund, as compared with £6,348,593 during the preceding financial year, and £6,555,310 out of Land Settlement (Public Works Loans) Account, as compared with £4,131,865 during the preceding financial year. Of the total £55,088,438 granted out of the Local Loans Fund, the sum of £53,594,480 was for the purposes of the Housing Acts, as compared with £5,940,612 during the preceding year. The average annual amount of loans granted by the Board during the period from 1875-6 to 1919-20 was £2,906,846 per annum. The total amount advanced by the Board during the 103 years from its origin in 1817 to 1919-20 was only £149,436,402, as compared with £61,643,748 granted during the single financial year 1920-1.
table.

ACCORDING to the "Labour Gazette" there was from 1914 until the end of 1920 a continuous upward movement in rates of wages. Early in 1921, however, a decline began, and from the beginning of the year until the end of June reductions were reported to the Department affecting over 4,300,000 workpeople, the aggregate reduction in weekly full-time wage rates amounting to nearly £1,770,000. On the other hand, in certain trades further increases in wages have been reported, 350,000 workpeople having received advances amounting to about £83,000 in full-time weekly wages. The rates of wages of building trade operatives in the principal centres (with the exception of painters in Scotland) were reduced by 2*d.* per hour in May or June. A further reduction of 1*d.* per hour for labourers was also arranged, to operate from July 1, but the effect of this further reduction is not included in the figures given in the

Trade Notes.

THE annual staff outing of Messrs. E. A. Roome & Co., Ltd., building contractors, Hackney, took place on Saturday last. The party journeyed by chars-à-bancs and private cars to Burnham-on-Crouch, where luncheon and tea were served at the Railway Hotel. The chair was occupied by the managing director, Mr. F. J. Gayer, who, in dealing with the toast of "The Employees," referred to the notable fact that quite a large number of those present had been with the company many years, and were present on the occasion of the first of these annual outings, a point which emphasised the loyalty and good feeling existing between the company and their staff.

THE fifteenth issue of "Road Reinforcement" is a credit to the British Reinforced Concrete Engineering Co., Ltd., of Manchester, London, &c., for the short twenty pages are well assorted, well written, and well printed. The only fault we find is its modesty, which has excluded the name of the firm from the letterpress and confined it to an allusion under three photographs of road work to B.R.C. foundations. Colonel Andrews, R.E., contributes a very interesting survey of "Road Development" in this country from pre-Roman to post-war days—that is to say, from trackways to roads of concrete reinforced with steel. A curious sidelight is thrown on the instinctive conservatism of the race during the past two centuries in the brief account called "Opposition to New and Improved Roads." The writer of the opening article sees the only solution of the housing problem in good roads and the consequent wide distribution of population.

BELL'S UNITED ASBESTOS CO., LTD., Southwark Street, S.E. 1, have sent us two booklets dealing with "Decolite" flooring. One is entitled "The Quest of the Perfect Floor," and the other "The Modern Floor." "Decolite" is a plastic composition, hardening in twenty-four hours, and of extreme toughness, being composed of the best fibrous asbestos (Bell's), magnesia cement, and other constituents. One of the great features is that it is jointless and laid solidly upon the foundation to a curved junction with the walls. "Decolite" has long passed the experimental stage, and has been adopted for Government and other public buildings, hospitals, factories, schools, theatres, houses, railway carriages, and other places. These marble-like floors can be laid by the contractor's men or by the special staff kept by the company for the purpose.

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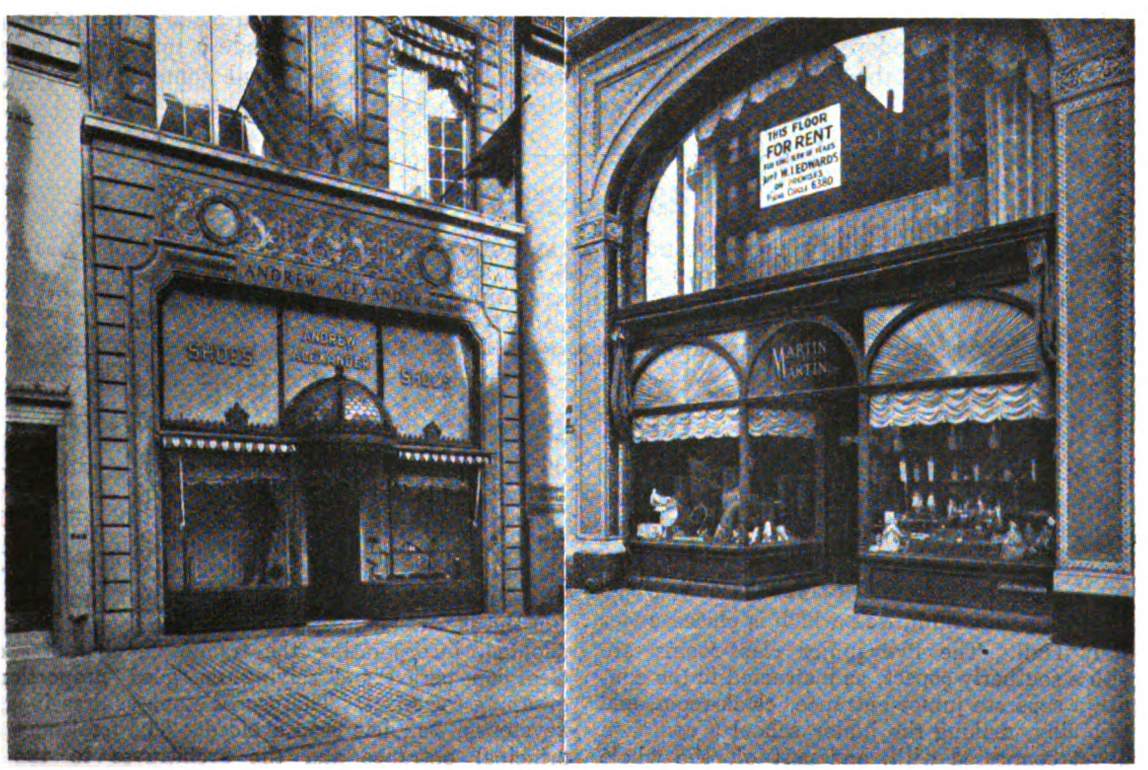
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Shops.

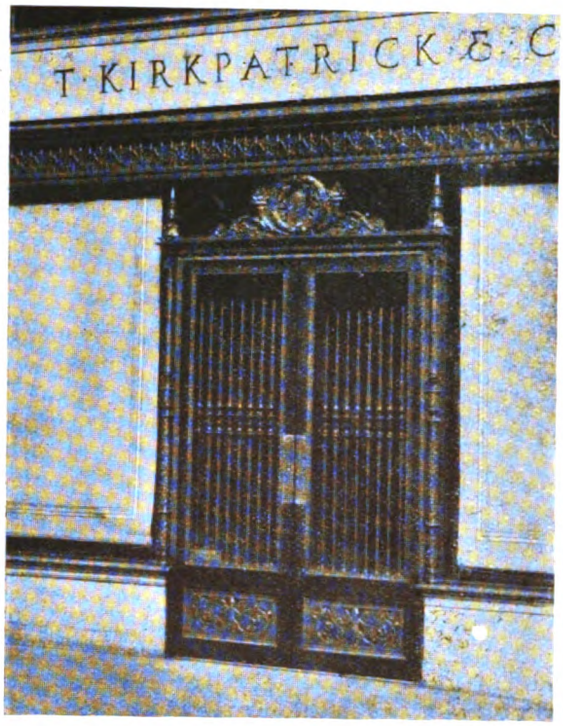
THE treatment of shop-fronts has become an important question ever since the great industrial era of the nineteenth century, before which date the shop was merely considered as a room on the level of the street with more or less space for the accidental display of goods, which were chiefly viewed from inside by those who definitely went to a certain place to make purchases. The old custom, according to which the apprentices of a trade attracted custom by calling out the excellences of their masters' goods to passers-by, as is well described in "The Fortunes of Nigel," is an indication that the attraction of the shop window was not relied on as an inducement to customers. The shop was, in fact, frequently rather the working place of a craftsman than a storehouse of goods, and goodwill was a greater commodity than it has become to-day. Now, the average "shopper," especially at periods of "sales," largely judges by the goods displayed behind plate-glass gaps in the walls of streets, and in many cases people have no clearly defined views of the special locality of the shop in which they will make their purchases. We have therefore introduced an element into the design of our streets which has revolutionised their appearance—greatly it may be added to the impoverishment of the architectural expression of our streets.

We have, in previous articles, pointed out the only manner in which, in our opinion, the problem could be satisfactorily solved in an architectural manner. Our streets have become what our markets are, a continuous show-place of goods, and should be treated, as our markets are, on a uniform system. We divide the area of a market into stalls under general regulations, and each stall-holder takes as much space as he is inclined to pay for, and displays his goods in that space, and in a market we get a consistent and uniform effect which may be said to depend on equality of opportunity. No stall-holder can, in the nature of things, make his stall more prominent than another save by the greater space he occupies or the better use he makes of it. The same effect would have been produced had the authorities insisted on the rebuilding not only of the Quadrant, but the whole of Regent Street on one defined system. The objections even to the massive treatment adopted by Norman Shaw would have died away in time had it been insisted on as applied to a whole district, as the shopkeepers' opportunity is limited not by actual, but by comparative opportunities. If a certain ratio, in other words, was established as a system between voids and solids, the shopkeeper, confined to a more limited window-space, would merely have to exercise greater skill in selecting and arranging his goods and in making his shop more attractive internally to his customers. Restrictions universally applied would hamper no one, but would preserve the appearance of the modern street in shopping centres. But such restrictions, unfortunately, are the last exercise of authority which we



NO. 548 FIFTH AVENUE. CARRÈRE & HASTINGS, Architects. NO. 618 FIFTH AVENUE. MCKIM, MEAD & WHITE, Architects.
(From "The Architectural Record.")

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DOORWAY—JEWELRY SHOP, 634 FIFTH AVENUE.
GEORGE PROVOT, Architect.
(From "The Architectural Record.")

can expect will be enforced though with the control of displayed advertisements, signs, and posters more good could be effected in our towns than could be brought about by the most vigorously prosecuted of artistic crusades. The subject has been brought to our attention again by a recent article in the "Architectural Record" of New York on "Newer Fifth Avenue Retail Shop Fronts," three of which we illustrate, because they prove our point rather than that of the writer of the article. He alludes to them as showing that the well-trained architect can design an admirably effective shop-front, whereas we should put it that though firms of the calibre of McKim, Mead and White, and Carrère and Hastings can and do design shop-fronts well, like other work, it passes the wit of man to design independent shop-fronts in any street which taken together can be anything but unsatisfactory in effect.

For the units formed by successive shop-fronts are relatively large, and so great a variety is possible in their uncontrolled design that they are bound to be discordant in their general effect. Only by the substitution of an accepted unit for the treatment of a whole length of frontage—a unit composed of voids and solids in rhythmical and regular succession—can our shops ever present a really satisfactory effect. The same criticism applies, but with lessened force, to the treatment of the upper portions of buildings in a street, which should be uniform in fenestration, in heights, and in detail; but this, though of great, is of lesser importance than the treatment of the shop-front itself, because the features of which the upper parts of street façades are composed are smaller than the shop-front itself. But we are back to our original argument that the desire of the trader for window display is a factor which can be very largely disregarded if it is dealt with by uniform and compulsory regulation. As it is, what happens is that each shopkeeper's object is to create as much glass frontage as possible and do with as few supports, and although an architect in these difficult circumstances often can design something which is clever and good under the conditions forced upon him, he never can design a satisfactory street frontage having relation to its neighbours. The public, which is ready enough to listen to criticisms of modern architecture, ought and should be made to understand that one of its great difficulties could be entirely obviated by regulations which would hurt no one, and inflict no penalties on anyone. The satisfactory treatment both of a street and a closely built over suburban area is impossible without regulation and arrangement, whatever may be the architectural merits of individual buildings.

The almost entire avoidance of the governing factors which we have mentioned is typical of much of the criticism of to-day which is indulged in more for the pleasure of talking than out of desire to promote really useful ends. We all remember Mr. Poyser's remark in "Adam Bede" that some people were like clocks which made a noise, not to tell the time, but because they had something wrong with their insides.

Illustrations.

BUNGALOW AT BYFLEET, SURREY, AND HOUSE AT ABINGDON. ALFRED W. S. CROSS, M.A., F.R.I.B.A., and KENNETH M. B. CROSS, B.A., Architects.

BURTON-ON-TRENT GIRLS' HIGH SCHOOL COMPETITION. Design by ALBERT SCHOFIELD, M.S.A., and F. MORRALL MADDOX, A.R.I.B.A. M.S.A.

SOANE MUSEUM: THE GALLERY OF THE SOUTH DRAWING ROOM. From a Drawing by ALFRED C. CONRADE.

Competition Design for Girls' High School, Burton-on-Trent.

IN this design an "E" type of plan has been adopted as the most economical and suitable, the portion facing west and nearest the existing house being carried down as a sub-ground floor. This arrangement makes use of the slope in the ground from east to west, securing adequate light to the gymnasium, &c., which is placed under the Assembly Hall. The five junior class-rooms are planned with a southerly aspect, as instructed in the conditions, with a separate junior entrance, cloak-room, and lavatory adjoining, making the junior school a complete entity and yet connected with, and part of, the whole symmetrical scheme. These five class-rooms comprising the south wing are repeated on the first floor for the seniors. The remaining six senior class-rooms are placed on the east front. The science rooms are placed on the ground floor of the north wing (thus cheapening the cost of sink-wastes, down-pipes, &c.), with the art-room, library, &c., on the first floor. The covered way is arranged so that the entrance to the existing house is over the area at the south end, as suggested in the conditions. Natural cross-ventilation throughout is provided for, with an extract air-pump ventilator to the Assembly Hall. For the elevations quiet and restrained treatment has been adopted, incorporating the traditional character of the Georgian period and relying on good proportion and grouping for effect. The use of stone as dressings, sills, keystones, &c., has been avoided. The treatment of the principal entrance and the architraves to the other entrance on the east front, together with the roof-cornice to this central block, are all in wood. This design was submitted by Messrs. Albert Schofield, M.S.A., and F. Morrall Maddox, A.R.I.B.A., M.S.A., architects, of Southport.

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Notes and Comments.

Overcrowded Professions.

We are glad to note that the heads of some of our great schools are pointing out to their pupils that some of the professions are overcrowded, and notably those of engineering and architecture. As these depend possibly to a greater extent than the law on the state of trade and other complex conditions brought about by recent upheavals, it is likely that they may for some years offer fewer inducements than in previous times, while they are increasingly exposed to the competition of those who rise directly from the ranks. Many years ago we remember the prediction of a friend that, in his view, manual labour was paid too little in proportion to mental labour, and that an adjustment must come which would be unpleasant to those whom fortune had apparently placed in a more favourable position than their fellows. This, in a nutshell, is what has actually occurred as the outcome of the Great War, and as Labour has now realised its power without fully understanding that its power must rest on the values which it can create, conditions are almost as uncomfortable as they can be. We shall probably have to wait some years before we know where we are, and meanwhile have to face the fact that the old privileges of the past which made life comfortable to many of us have been almost entirely swept away, leaving it for everyone to realise that the only useful knowledge is to find out what is wanted by the community; for that alone the community will give market value for.

Curios and Morals.

We have recently heard of what seems to raise a subtle distinction in the matter of morals. We heard of a man who had bought some fine old silver from a cottager at what might be one-tenth of its market value, and the transaction was condemned as immoral, since it was taking advantage of ignorance. We suggested that most people, seeing a Romney among the débris in a small shop, would not hesitate to purchase it for a few pounds without remembering to expatiate on its market value. The reply was that such an act would be blameless because the picture was exposed for sale in a shop. We have some hesitation in admitting the difference, because in both cases the possibility of such a transaction depends on the ignorance of the seller of a value the buyer alone understands. In our view it is either right to purchase what one can at the lowest price anywhere, and from anyone, or it is not. If not, all our purchases might as well be made at Christie's or some similar firm; and if we find what we want in the hands of the ignorant, whether shopkeeper or cottager, we should in fairness suggest the valuation of what we wish to purchase by an expert. The only point we should be inclined to emphasise as infringing morals is when the prospective purchaser, knowing anything to be valuable, deliberately tries by a suggestion of what is untrue actively to deceive the seller; otherwise we are disposed to think that a disappointed seller, on learning that he has parted with anything he owns at a price below its value, may be usefully driven to reflect on the adage that knowledge is power, a power which it is within the means of most of us to acquire, at least in part, so that a temporary loss may lead to a permanent and very useful gain.

Housing Finance.

The "Financial News" gives a series of figures showing the financial difference between the cost of building cottages before and since the war, and calls attention to a factor which is often overlooked—that of the high taxation of to-day. It says: "The two elements of the paralysis are excessive building costs, and taxation and rates based in effect on those costs. Building costs over and above an economic rental yield are nothing more or less than a free gift made to workmen for value in labour not received. In short, they are pure waste, and to look for a return upon such waste is merely illusory. The waste is made worse by treating it, for purposes of taxation and rating, as an asset. At a return of 1.25 per cent., allowing nothing for depreciation, nobody can build cottage property, and 1.25 per cent. as shown is all that is left, after the owner has been skinned by the tax and rate collectors."

Possibly those in authority who have put an end to direct financial help in the matter of housing may turn their attention to the equally important item of its taxation. The above extract only serves to show what all are beginning to realise—the danger of the long-continued laxity of the Government administration of finance.

The Unification of the Profession.

We learn that the following resolutions dealing with Registration were passed at a recent meeting, and have been approved by the R.I.B.A. Council, and that a Sub-Committee has been appointed to negotiate with the Council of the Society of Architects on the basis approved. The resolutions are:—

1. That the principle of Scheme "A"—namely, the bringing of all the architects of the United Kingdom into membership of the R.I.B.A.—be adopted as the basis for unification.
2. That the matter be referred to the Sub-Committee to consider details and report to the Main Committee.
3. That the Committee recommend the Royal Institute to draft such alterations to its charter and by-laws as may be necessary to comply with the principle of Scheme "A," adopted this day by the Unification and Registration Committee, and to confer with the Council of the Society of Architects as to conditions of membership.
4. That six additional representatives of the Allied Societies be selected by the Chairman and Vice-Chairman from members of the Main Committee to serve upon the Sub-Committee.

It is hoped that by the end of the holidays matters may be sufficiently far advanced for the R.I.B.A. to hold a meeting to carry out the third recommendation.

The proposals adopted seem to us the best of those brought forward by the Unification Committee.

Major Pawley's Little Scheme.

"The procedure to be adopted in getting the necessary funds for building the London war shrine and completing the scheme has been outlined at a special meeting in Caxton Hall, London. The shrine will take the form of a Greek cross, 350 ft. in length and 350 ft. in breadth, whilst it will be 250 ft. in height. It will contain seventy-eight chapels, and will be built on the north side of the Thames, between a new Empire war memorial bridge, which will take the place of old Lambeth Bridge, and the Tate Gallery. The whole scheme will take fourteen years to complete, and it is estimated that nearly £2,000,000 will be required to launch the project. With this object a special appeal is to be made to the women of the Empire, and ladies' committees are to be formed throughout the country with a view to collecting subscriptions. The campaign will be started in the autumn. Major C. J. C. Pawley, the architect, said they had submitted the completed design to the Queen, and it was proposed to ask Parliament to give its approval."

The above account is taken from a contemporary, and shows that the redoubtable Major Pawley is again on the war-path. We have no doubt that meetings will be held which we shall be informed are influential and enthusiastic, and that this absurd scheme will be widely advertised. We have equally no doubt that no stone of the proposed building will ever be laid, and that the neighbourhood of the Abbey will not be cumbered with a meaningless white elephant built out of subscriptions obtained from the people of England.

Professor Dearmer will give a course of Lantern Lectures at King's College, Strand, on Fourteenth Century Art. The lectures, which will be open to the public without ticket, will be at 5.30 on the Wednesdays in term beginning on October 12.

The King has appointed Sir Arthur John Evans, F.R.S.; Sir Charles Hercules Read, President of the Society of Antiquaries of London; Dr. M. R. James, Provost of Eton College; Mr. Duncan Hector Montgomerie; Mr. William Page; and Mr. Charles Read Peers to be members of the Royal Commission on Historical Monuments (England).

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Art News of To-day.

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THE drawings of the English school, acquired since 1914, which have been exhibited at the British Museum for the last year, have now been withdrawn, to give place to an exhibition in the Gallery of Prints and Drawings of drawings of the Continental school acquired during the same period. These include specimens of the work of Brueghel, of Rubens and Van Dyck, of Rembrandt, together with four drawings of Albrecht Dürer. The Italians of the sixteenth, seventeenth, and eighteenth centuries are represented, with a few Spanish paintings: on the other hand the French school find a very good place on the walls, commencing with the sixteenth century and going down to the nineteenth and even later, and the display includes the art of Degas and Forain. The above remarks will show that a very attractive collection is here put before the British public, to which we hope to return in more detail on a later occasion.

In this dead season, when most of the Galleries, if open at all, are contenting themselves with the usual "summer exhibitions," an individual show of considerable interest is being given at the Burlington Gallery in Green Street of the work of that brilliant water-colour artist, Mr. Littlejohn. The artist does not confine himself here to water colour, but uses also oil colour and pastel. While reserving a detailed account of this exhibition, which is open for the month of August, for our next week's issue, we may mention here, in passing, the masterly handling of white cliffs in two of these studies, which give the sense of atmosphere and reflected light along with this painter's fine sense of spacing.

Two very important art publications, which will possess special interest for readers of THE ARCHITECT, are "Homes of the Past," published last month by the Bodley Head, and "English Church Monuments of the Gothic Period," due for publication shortly by Messrs. B. T. Batsford, of High Holborn. Mr. John Lane, in "Homes of the Past," written by W. H. Helm, with fifty-nine pen-and-ink drawings by A. C. Chappelow reproduced for illustration, gives us a sketch of domestic buildings and life in England from the Norman to the Georgian age, together with a proposal for preserving certain typical houses, each to be furnished as an example of its own time. As a type of a well-preserved Norman house the author has chosen Boothby Pagnell in Lincolnshire. "English Church Monuments," by Fred H. Crossley, will form the second volume in Messrs. Batsford's series on "English Church Crafts," the first having treated mediæval woodwork. It will be richly illustrated with more than 350 plates, forty of these being full-page, from the author's own photographs for the most part, and a separate chapter will deal with the evolution of tomb design.

It is interesting to note that Bolton Abbey, where the King is now honouring the Duke of Devonshire by a visit, probably suggested a famous painting by Landseer, in which the tenants of the old Priory are offering a great store of game, comprising a noble stag, to the Prior and his monks at the entrance gate of the monastery. The Order of St. Augustine, to which the Priory, founded in 1120 A.D. by William de Meschines, was dedicated under the special patronage of the Virgin Mary and St. Cuthbert, was not one of the stricter monastic orders, and could combine contemplation and study with some of the good things of this world. At the dissolution of the monasteries by Henry VIII., which involved the eventual destruction of many of our national treasures of architecture, the Priory was given by the King to the Earl of Cumberland, from whose family it came later into the possession of the Dukes of Devonshire, who still hold it.

S. B.

New Books.

"Spanish Painting." The Works of El Greco, Velasquez, Murillo, Goya, and the Artists of the Present Day. Text by A. de Beruete y Moret (Director of the Prado Museum, Madrid). Special Number of "The Studio," 1921. Edited by Geoffrey Holme, "The Studio," Ltd., London.

IN this special number of "The Studio" the text by Señor Aureliano de Beruete is stated to be written "with special reference to the exhibition at Burlington House, London, November 1920 to January 1921," in whose arrangement and hanging Señor de Beruete had such an important share; and the same applies to the numerous illustrations, so that to anyone who had studied that interesting exhibition this work would form a very valuable reference and guide.

At the same time neither in text nor illustrated matter does this work keep entirely to what was then shown, paintings from the Prado ("Las Meninas"), the Seville collections, and our National Gallery ("Philip IV." and "Venus and Cupid") and Wallace Collection being here reproduced: so that this is really an illustrated review of Spanish Art by one who is a known authority on this subject. Commencing with the primitives, with the arrival of the Italians Starnina and Dello at the Court of Juan I., and the very strong and direct influence on Spanish Art of Van Eyck and the Flemish, and that interesting fifteenth-century painter, "George the Englishman" (Jorge Inglés), the writer soon brings us forward to the creations of El Greco, who appeared very strongly in the Burlington House Exhibition, to Ribalta, Zurbaran, and Velasquez; and it is interesting to find, in his necessarily short but admirable summary of the art of the last-named painter, that, in spite of criticisms which appeared at the time of the exhibition, this author holds to his attribution to Velasquez himself of the admirable "Calabacillas, the Buffoon," from Sir Herbert Cook's collection, and the no less attractive "Don Baltasar Carlos," lent to that exhibition by His Majesty from Buckingham Palace. "In our judgment," says Señor de Beruete of this last portrait, "it is an undoubted Velasquez, and, moreover, a most beautiful example. Every part of the armour, of the legs, of the body, and, above all, the adjustment of the figure and the design are typical of Velasquez. How has it come to be regarded in England as a work of Mazo, where the master is so justly esteemed, and where, owing doubtless to enthusiasm for Velasquez, nearly all the pictures of Mazo are attributed to Velasquez?"

Señor de Beruete considers that "after Velasquez the most important painter of the School of Madrid is, beyond dispute, Carreno." Don Juan Carreno de Miranda was well represented in the last London exhibition, notably with the fine portrait of a young lady, lent by the Duke of Medinaceli, which is among the illustrations here, and by that of the Queen of Spain, Doña Mariana de Austria. But it is specially interesting to follow the author's views on the art of Goya—a subject on which he is the recognised living authority. These pages are, in fact, among the most interesting. Tracing the Italian influence in Spain of the eighteenth century, under the advent of Luca Giordano (whom we scarcely recognise in his Spanish title of Lucas Jordán) and of the great Venetian Tiepolo, the author traces in four pages the wonderful and essentially Spanish creation of Francisco de Goya.

Then we come to the moderns; and, after paying a deserved tribute to the genius of Fortuny, who took Goya as his guide, the author places in the front of modern Spanish art the Valencian Joaquin Sorolla, a painter of light and atmosphere, the robust art of Zuloaga, the colour harmonies of Anglada. This last he considers "one of the most original of modern painters"; and adds—a statement with which we fully concur—"it is a great pity that he was not represented at Burlington House."

S. B.

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Industrial Council for the Building Industry.

THE annual meeting of this body, which is also generally known as the Building Trades Parliament, was held at Montagu House, Whitehall, S.W., on August 11 and 12. Mr. James Storrs, J.P., president, was in the chair.

In a few preliminary remarks Mr. Storrs said that it was some considerable time since the Council had held a meeting. There ought to have been one in June last at Edinburgh, but it was abandoned on account of the railway strike. That afternoon the Master Plumbers were not represented, as by an unfortunate chance their own annual meeting was taking place at Chester, nor were there representatives of the employers from Scotland. Scotland had given notice of its intention to resign from membership of the Industrial Council; but after being interviewed Scotland consented to receive a deputation. Several attempts had been made to bring such meeting about, though so far without success. So their withdrawal was not absolutely final.

The first matter to be discussed was the

REPORT OF THE EDUCATION COMMITTEE.

It was reported that considerable progress had been made in several districts with the scheme of apprentices, and the Committee record their appreciation of the assistance of the Training Department of the Ministry of Labour in promoting local conferences. Up to the end of July such conferences had been held in seventy-four centres. In the majority of the districts the scheme was well received and the necessary steps taken to establish Local Building Trades Apprenticeship Committees. Consideration had been given to the question of the working of these local committees, this having been raised more particularly in regard to the expense involved in their operation. With a view to saving the Council from the responsibility for any such expense it was recommended that co-operation with the Juvenile Employment Committees be established throughout the country, and that the Industrial Council desire the Ministry of Labour to give each of these Apprenticeship Committees the same facilities as are accorded to other Juvenile Employment Sub-Committees in the areas concerned. A revised scheme for Scotland is now under consideration by employers and operatives. It was recommended that the indenture should be so printed as to allow of local variations and of applicability to each craft, and that copies should then be sold, with the necessary stamp included, to local committees at an inclusive fee. In conclusion the Committee mention that the Eastern Counties Joint Area Council desire to put into operation in that area an apprenticeship scheme based upon the one approved by the Building Trades Parliament, but so differing in fundamental features that they cannot recommend it for support.

There was general agreement with those portions of the report which we have outlined above—though complaints were raised as to general apathy. But there was one recommendation which aroused considerable opposition and which was finally rejected. By this recommendation the National Apprenticeship Council of the Plumbing Trade would be allowed to deal with its own specific craft, to appoint its own local councils and committees, and to organise its own scheme with its own indenture. Mr. D. Anderson (Employers) in opposing it protested that such a recommendation was a reversal of the principle of the whole scheme, and would make for disruption instead of unification. Separate craft training had been tried and had failed because it tended to a monopoly. Let the plumbers be represented on the Education Committee, but they ought not to be allowed such a controlling influence that it would be equivalent to the tail wagging the dog. He asked that the report should be held up until it had been put before the constituent bodies of the Industrial Council. Mr. E. T. Brown (Employers) said they in London were most anxious for an apprenticeship scheme which would cover all the branches of the building industry, but that part of the report should not be adopted before the various alternative schemes, of which there were already five, had been considered. Mr. Storrs (the president) explained that as the Industrial Council was only a consultative body they could not enforce any scheme, and if the recommendations were adopted it would be for the constituent bodies to come forward and put them into practice. Mr. J. H. Cantrill, as hon. secretary of the Committee, demanded to know where the Education Committee stood—nine months ago the principles of the scheme were sanctioned and now, after a great deal of work had been put into it, it was said the constituent bodies did not agree.

The meeting finally adopted the report with the exception of that portion agreeing to an independent apprenticeship scheme for the National Apprenticeship Council of the Plumbing Trade.

On the proposition of Mr. A. J. Forsdike (Employers) the following resolution concerning the general scheme for the education of apprentices was carried:—"That this Council finds that its propaganda efforts in support of this scheme, by reason of the fact that the adherent bodies have not so far given their formal support to this scheme and directed their constituents to put it into operation, are not meeting with adequate success, and therefore requests those adherent bodies to come together for the purpose of jointly issuing instructions to their constituents with regard to their attitude to the scheme, and requests the National Federation of Building Trades Employers to convene such a meeting."

TREASURER'S REPORT.

Mr. John Batchelor, hon. treasurer, in submitting his report, stated that at the last annual meeting it was decided to make a call for £2,000—£1,000 from employers' associations and £1,000 from operatives' associations. Calls were made on the constituent bodies for that sum, and on the employers' associations for an additional £125 7*s.* 11*d.* due from them in order that their contributions should equal those paid by the operatives' associations in the previous year. Of the £1,125 7*s.* 11*d.* due from the employers' associations there was received to June 30 last £925 14*s.* 7*d.*, and of the £1,000 due from the operatives there was received to June 30 the sum of £933. In both cases some of the outstanding contributions have since been received.

It was decided at the last annual Council meeting to invite professional bodies to become affiliated to the Council. The following bodies accepted the invitation, and decided to send four representatives each: The Royal Institute of British Architects, the Society of Architects, the Surveyors' Institution, and the Quantity Surveyors. As they did not affiliate until late in the Council's year, they were assessed at one-fourth the sum due from the employers' associations. Up to June 30, 1921, the sum of £14 5*s.* 9*d.* each was received from the Surveyors' Institution and the Society of Architects, and a similar sum has since been received from the Quantity Surveyors. The total balance at the bank on June 30 was £958.

The meeting voted an honorarium of £200 to Mr. A. G. White for his past services as Secretary to the Industrial Council—an office which he has had to resign on account of pressure of other work.

The appointment of Mr. A. J. Lloyd as Secretary was formally confirmed.

REPORT OF THE MANAGEMENT AND COSTS COMMITTEE.

The first part of this report dealt with unemployment insurance. The Committee are convinced that no appreciable increase of production or display of greater interest by the operatives of the industry is likely to accrue until the overhanging fear of the consequences of unemployment is removed. It was found that under the Unemployment Act, 1920, it would be possible to set up a "supplementary scheme" by which the industry could add to the State grant without the operatives losing their rights to the benefits of the State scheme, to which the

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ordinary contributions would be paid. The Committee submitted the following proposals:—

(*a*) The provision of a benefit of 15*s*. per week per man in addition to the State benefit of 15*s*. per week per man.

(*b*) That the funds shall be provided by means of joint contributions by employers and operatives, to be collected by means of a special stamp of the required value.

(*c*) That the shares of employers and operatives shall be respectively 8*d*. and 7*d*. per man per week in addition to the 8*d*. and 7*d*. required under the State Unemployment Insurance Scheme.

(*d*) The scheme should apply to all men registered with the employment exchanges as operatives in the building industry by whomsoever employed.

(*e*) That for the purpose of supervising and reviewing the operation of the scheme, in so far as financial considerations are concerned, and for safeguarding the interests of the industry, there shall be set up a Joint Insurance Committee equally representative of employers' and operatives' organisations, and appointed by, and directly responsible to, the Industrial Council for the building industry.

Nothing in the foregoing shall operate against the scheme being administered, funds collected, and benefit paid by the Minstry of Labour as in the general unemployment scheme.

(*f*) That the scheme shall be established subject to a review of contributions and benefits at the end of three years, and subsequently at such periods as may be determined after experience of its operation.

Mr. Thomas Foster (Chairman of the Committee) proposed the following resolution: "That the report of the Management and Costs Committee on a scheme of unemployment insurance be approved and remitted to the various constituent bodies in order that they may express their opinions on the principles outlined in the report, and that the Committee be authorised to proceed with the preparation of a detailed working scheme of supplementary unemployment insurance, having regard to any recommendation that may be received from constituent bodies."

Mr. E. J. Strange (Employers) appealed to both sides to support the scheme as being a businesslike way of supplementing the present inadequate benefit. Statistics supplied by the actuary of the Ministry of Labour showed that there was 6.8 per cent. unemployment in the building trade, as against 5.3 per cent. for other trades.

Mr. W. Stranks (Operatives), speaking as a trade unionist, criticised the scheme. He would place responsibility for adequate unemployment pay solely upon the State, and he saw elements of retarded progress in each trade controlling its own destiny. The operatives, unlike the employers, would be unable to pass on to the community the burden of these extra contributions.

Mr. F. Kennedy (Operatives) thought the Industrial Council, instead of talking about unemployment insurance, ought to go to someone (unspecified) and compel them to give work to the men now walking the streets and who are wishing to do something useful. That morning at Marylebone he had seen a queue of unemployed 150 yards long and twenty men wide who were seeking jobs.

Mr. F. G. Whittall (Employers) considered one of the main causes of the present ridiculous and prohibitive prices in the building trade was the fear of unemployment among the operatives. Contractors could not now "deliver the goods" at a reasonable figure. The proposed supplementary benefit scheme might help them to do so by removing the fear of unemployment and so lowering the cost.

Mr. R. Coppock (Operatives) declared that any proposal that might weaken the link between the man and his organisation would be opposed. It had been suggested that the scheme should be administered, funds collected, and benefit paid by the Ministry of Labour. He (the speaker) did not wish the men in the future to suffer the iniquities and the oppression they suffer under the present compulsory unemployment scheme. He wanted them to get the full benefit, and for the extra contributions to be safe from the caprices of the politician. There were points on which each side would refuse to agree. The present proposal appeared to be a *via media* between those opposing points of view. But he was convinced the funds ought to be administered as the industry, and not as the Ministry of Labour, shall decide.

Mr. L. Macdonald (Operatives) characterised the report as being not altogether what they wanted, but as the best they could get.

Mr. G. Hicks (Operatives) thought that the men ought not to be asked to make any further contribution to unemployment funds, but that it should be paid solely by the employers.

The resolution proposing the adoption of the report was finally agreed to, with two dissentients.

The Management and Costs Committee are appealing to employers to keep records of time lost, owing to stress of weather, either on the whole work of a firm or on individual jobs. Forms have been designed to give separate records for the different crafts.

Representation by Professional Bodies.

Mr. Thomas Foster moved the following resolution:

"That the decision of the Council at the meeting on February 11, 1921, 'to invite one representative from each professional body' to serve on Committees of the Council be rescinded and the following resolution substituted: 'That on Committees of the Council where their assistance will be valuable representatives of the professional Associations may be appointed; such representatives on any Committee to be not more than two in number, their appointment to be made by the Council on the nomination of the professional members of the Council.'"

This resolution was carried unanimously.

Officers and Committees.

The following re-elections were agreed to:
Mr. James Storrs, President.
Mr. Thomas Barron, Vice-President.
Mr. John Batchelor, Treasurer.
All committees will carry on for the next three months.
An honorarium of £50 was voted to Mr. Batchelor.

Reports of the Safety and Welfare Committee.

The first of the three reports presented by this Committee dealt with the administration of the proposed safety regulations for building operations. In May 1920 it was unanimously recommended that legal regulations should be made by the Home Secretary so as to reduce the serious accident risks arising out of building operations. Subsequently a suggested draft of such regulations was sent to the Secretary of State. The principle was warmly approved by the Home Office, but it was explained that the Factory Department would not be able to cope with the suggested extra work without a considerably augmented staff. As an alternative they suggested the creation of Safety Committees, consisting of representatives of the workers and the management, who should make frequent inspection. Until further powers are granted to the Home Office any regulations can only be applied to building operations on which steam, electrical, or other power is used. As a result of a conference with H.M. Chief Inspector of Factories, it is suggested by the Safety and Welfare Committee that District Committees representing employers and workers in the industry should supervise the observance of the regulations, and that the workers and other parties should be encouraged to lay before these Committees complaints respecting avoidable dangers on any building operations in the district. If a Committee were satisfied that the regulations were not being observed, it should, in the first instance, call the attention of the employer to the matter. If this action did not secure the necessary remedy reference could be made to the Inspector of Factories. The Council last week adopted this report unanimously, and promised to co-operate in every way in securing observance of any regulations which may be issued.

The second report, which was also adopted, set forth the steps taken to consider whether stonemasons should be brought within the scope of the Workmen's Compensation (Silicosis) Act, 1918. The matter is under discussion with the various parties concerned.

The third report of the Safety and Welfare Committee dealt with "alterations which have been suggested in the Draft Regulations for Woodworking Machinery." In 1919 the Industrial Council, after a

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series of inquiries, submitted to the Home Secretary proposals for the establishment of legal regulations in order to safeguard operatives engaged in woodworking machinery. In September 1920 the Secretary of State issued a draft code of regulations and invited objections or amendments. In view of the consequent representations made by employers, certain alterations in the draft were submitted for consideration by the Council. These alterations were approved by the Committee, and their adoption was now recommended. Mr. A. J. Forsdike, however, proposed "That the report be received, but that consideration thereof by this Council be deferred pending an opportunity being given to those constituent bodies which have lodged objections against the original draft to consider the amended draft and to report to the Council." After an at times rather heated discussion between the operatives and the employers, this motion was adopted by twenty-two votes to ten.

The concluding item on the agenda was to select a date and place for the next meeting. This was finally fixed for November 10 and 11 in London.

Correspondence.

White-Lead Poisoning.

To the Editor of THE ARCHITECT.

SIR,—Statements have appeared in the Press of late that much of the suffering to which house and coach painters are subject is traceable to turpentine poisoning. This may be true; but it is false to state that painters do not suffer from white-lead poisoning. They certainly do to an extent which is to many incredible. Your correspondent, whose letter you print in your issue of August 12, 1921, admits, on the authority of Sir Kenneth Goadby, Sir Thomas Oliver, and others, that painters' sickness is attributable to one process —the dry rubbing down of old painted surfaces. My experience of over forty years goes to prove that "wet" rubbing down is also dangerous, for not only does the lead product in wet paste form cover the painter's hands and arms, but it falls on the floor—there it dries—and is rubbed up in dust and inhaled.

As total prohibition is objected to, the obvious remedy is "restriction," for it is said to be a necessity that a minimum of 5 per cent. of lead products be present in paint, on an average. This remedy (restriction) is precisely what is recommended in the Government Report (Cd. 7882). This series of Reports consists of four volumes: "Report of Committee on the use of Lead in the Painting of Buildings." (Cd. 7882) forming Volume I. "Report of Committee on the use of Lead Compounds in the Painting, Enamelling, and Varnishing of Coaches and Carriages" (Cmd. 630), forming Volume II. "Appendices to both Reports" (Cmd. 631), forming Volume III. "Minutes of Evidence taken by both Committees" (Cmd. 632), 9*s.* net, forming Volume IV., a huge tome of 804 pages and including 23,095 questions and answers with two copious indices.

Lead Substitutes.—Zince oxide: the grade which is most suitable, physically, for making paint, contains 5 per cent. of lead as basic lead sulphate. Whereas, zinc oxide, chemically pure, being snow white, is most suitable for grinding with varnish to make pure white enamel. Zinc hydroxide ($ZnHO_2$) is the base of a French pigment which combines chemically with oil and does not settle or separate. Many competent practical experts regard it as in every way an equal of white-lead paint in durability, both outside and in, on sea and land. Its origin and uses are described in the Report (Cd. 7882) and (Cmd. 632). Unlike white lead, it does not discolour in the air of large cities, and costs no more to use than white-lead paints; no extra coat is necessary. H.M. Office of Works use a formula for paint in which only a minimum of white lead appears, and such paints are as durable, or more so, than others. Evidence of Sir H. Tanner (Cmd. 632): As long as white lead is permitted to be a principal ingredient in paints so long will painters and their offspring suffer from plumbism. For the injurious effects include, *inter alia*, not only the chronic lead poisoning of seven out of every ten painters, but frequently, in addition, the racial poisoning of the painters' progeny, with mental deficiency; and the numbers of the painters' children are less than half their ancestral average. . . . ("American Journal of the Medical Sciences," June 1914, No. 507.) In this journal fifteen pages are closely printed, entitled, "Critical Examination of One Hundred Painters for Evidence of Lead Poisoning." By E. R. Hayhurst, A.M., M.D.

Much discussion has taken place in the past as to the possibility of minute traces of lead being given off in a volatile combination of fresh paint. The following experiments are brought forward to show that this does actually occur. A round of pure filter paper is laid flat in a dessicator containing commercial white lead, rubbed down in linseed oil. After twenty-four hours the paper affords positive reactions for minute traces of lead. None is found in a similar paper exposed in a dessicator in which there is no white lead. If the same experiment is repeated with lead paint prepared two days previously, no reaction for lead is obtained from the paper. It appears, therefore, that the volatile lead compound is given off only from freshly mixed paint. Similar experiments also gave positive results for lead when made in a room in which painters were applying white-lead paint. Here there was not the same certainty as in the preceding experiment, that none of the lead found was due to contamination by air-conveyed micro-droplets ("Pharmaceutical Journal," August 9, 1919).

As late as July 20, 1921, I read in the daily Press, "Errors made in Diagnoses; 80 per cent. wrong. An eminent doctor said that a wrong cause of death is given in many more than 80 per cent. of cases!" What, therefore, is the value of the Registrar-General's statistics as to lead poisoning?

Those statistics have always been at variance with the report issued annually of the Amalgamated Society of Operative House and Ship Painters and Decorators. The Registrar's figures are largely based upon the number of cases reported under the Factory Acts. But house painters are not subject to the Acts; so cases among house painters are seldom reported, or, if reported, are described as due to causes of a secondary nature, as any impartial medical practitioner would admit. The obvious and necessary action, if the lives of the house painters and their offspring are to be saved or lengthened, is to prohibit the use of paint (for surfaces which are afterwards rubbed down with pumice) which contains more than 5 per cent. of lead compounds. Such restriction would not seriously lessen the production of white lead, for there will always be an increasing outlet for white lead for paints used for dipping large vehicles used on the railways, agricultural machinery, &c. Also for paints used by the spraying process. But for house painting more suitable pigmentary materials are on the market of a comparatively non-poisonous nature, and which, when rubbed down before repainting or enamelling, do not give off poisonous dust, such as lead-oleate from old coats of white lead undoubtedly is.

My contention is supported by medical men of large practice in municipal educational departmental work that a very large number of children, for whom special schools are provided, owe their mental defect to the occupation of their parents—lead working or brass casting, through inhaling either dust or fumes. To assert that painters do not suffer from lead poisoning, but only from turpentine poisoning, is to state what is obviously contrary to facts, only betraying the ignorance of the writers, for the painters' symptoms are practically similar to those of other lead workers who never come into contact with turpentine. It cannot be too strongly urged that lead in any form is a virulent "racial" poison only comparable to the use of alcohol in excess or to a certain constitutional specific toxin, the prevalence of which poisons, any or all of them, would soon sap the vitality of this or any other nation. But, as these evils are to a large extent preventible, every effort should be made to that end. "To him that knoweth to do good and doeth it not, to him it is sin."

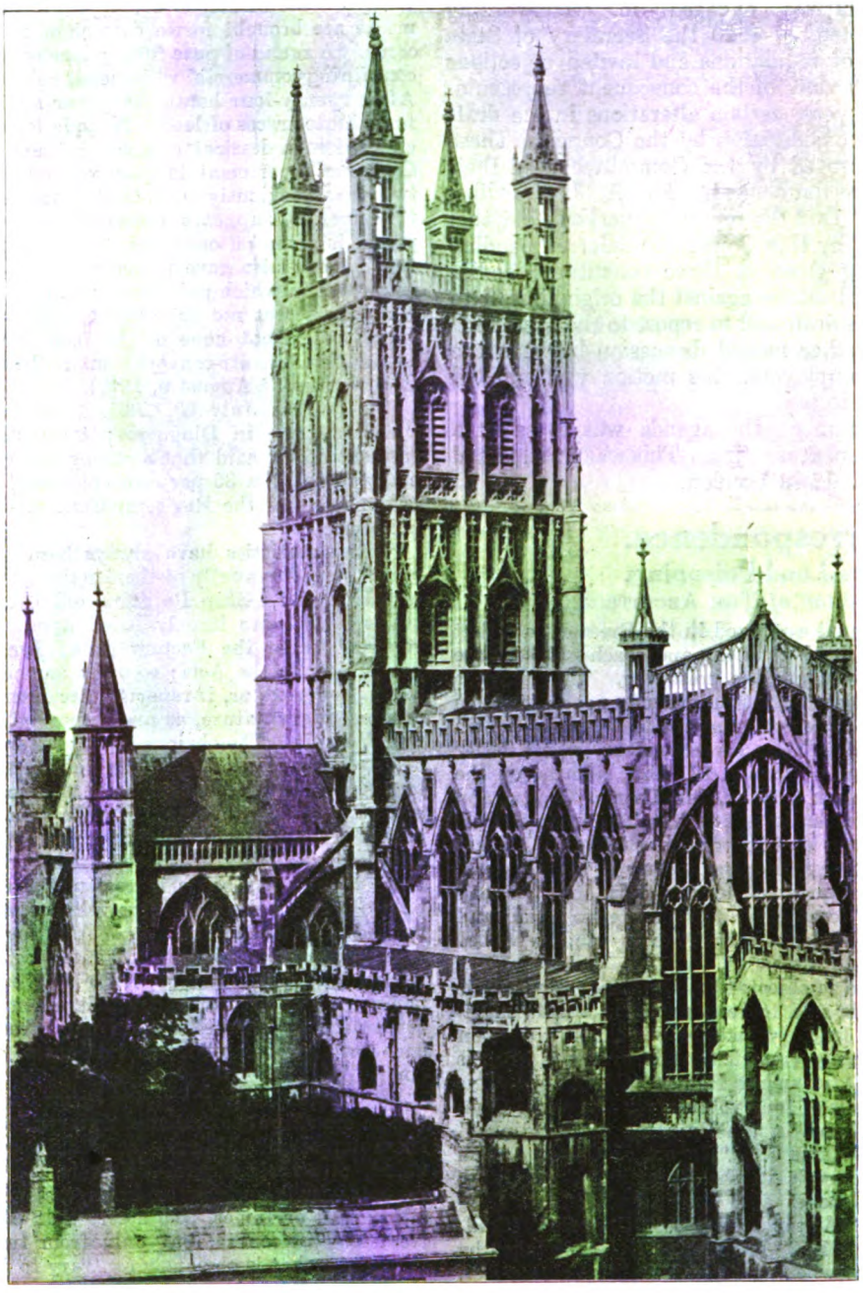
May I again repeat that I am not personally financially interested in the sale of any paints or pigments? The medical and other experts, whose opinions have been quoted in past years, have, however, been retained by white-lead manufacturers; also their testimonies do not agree one with another. Such evidence will not, I infer, weigh much in the scale when compared with the practical experience of the operatives themselves, next October, by the Third International Labour Conference at Geneva, who will have before them the incomparably superior results of the use of lead-free paints and enamels. And I may be forgiven for preferring statistics compiled by the Operative Painters' Society to any others if only 20 per cent. of medical diagnoses are found correct after post-mortem examinations.—Yours, &c.,

Edgbaston, August 5, 1921. CHARLES A. LINE.

MR. T. F. BUNTING, surveyor to the Education Committee, has prepared draft plans for an extension of the Tonbridge Road Junior Council School, Maidstone, to provide 320 extra places. The plans are to be submitted for approval to the Maidstone Town Council.

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Gloucester Cathedral Tower.



TOWER FROM THE SOUTH-EAST, SHOWING THE FLYING BUTTRESSES.
(Kindly lent by the Bristol and Gloncestershire Archæological Society.)

At the second of the evening meetings arranged in connection with the summer meeting of the Royal Archæological Institute and the Bristol and Gloucestershire Archæological Society at Gloucester, a paper was read dealing exclusively with the central tower of Gloucester Cathedral. The author was Mr. F. W. Waller, the architect to the Dean and Chapter, and from the paper we give the following extracts:—

The occasion which gave rise to the writing of these notes was the fall in 1906 of a large piece of masonry from the choir groining at the junction with the tower.

The Dean and Chapter at once gave instructions for a scaffold to be erected, and an investigation to be made to ascertain the cause of this fall of stone, and serious defects were found, which it was impossible to detect from below.

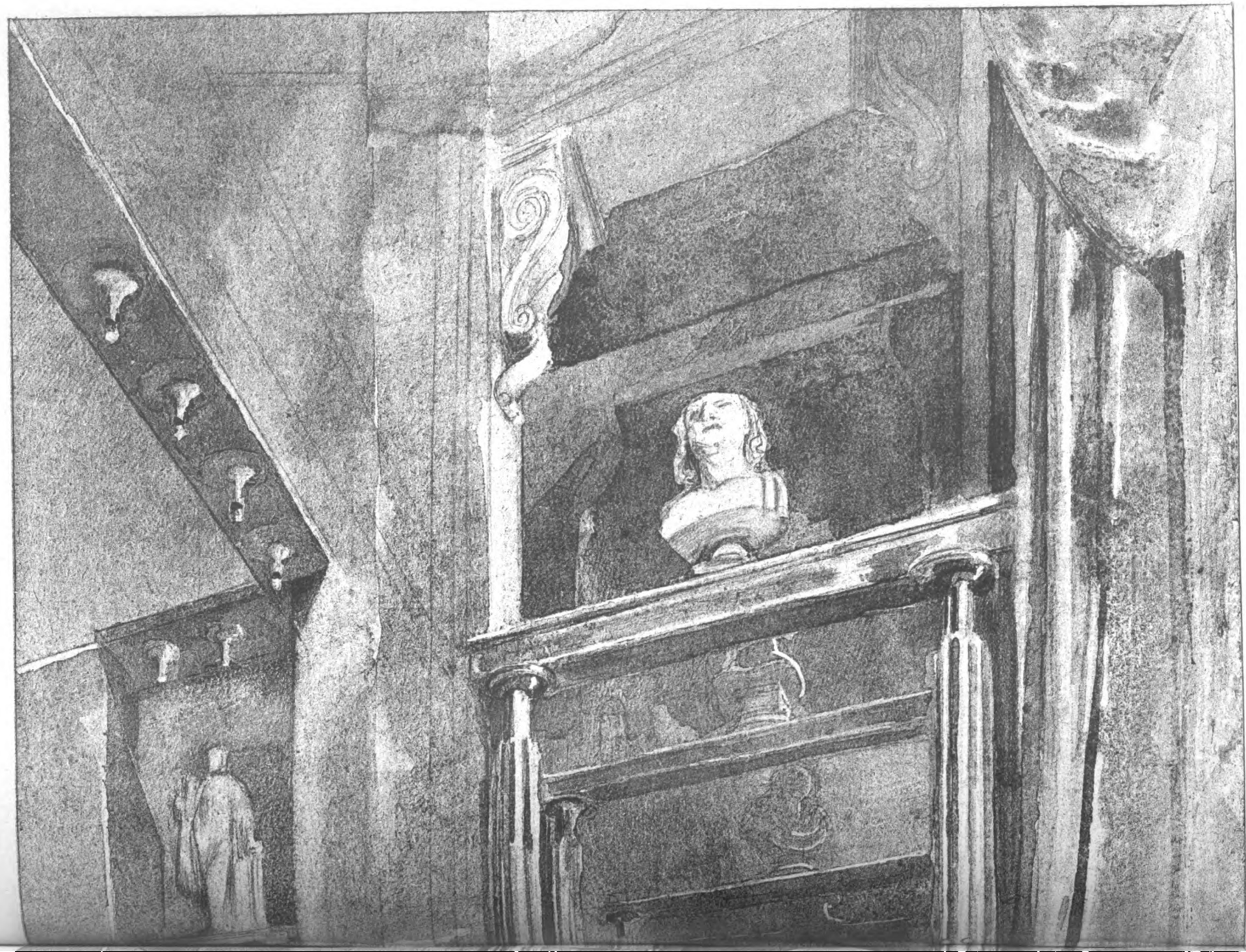
Although the architectural history of the cathedral generally has been exhaustively dealt with in modern times by many well-known authorities, in no case, so far as is known, has the tower received that attention which its most exceptional character appears to demand. The general circumstances and date of erection are given, and its beauty is commented upon by all, but nothing further; and as important reparative works were required in connection with the tower, it seemed most desirable that the necessity for these, and their nature and extent, should be as widely known and as fully understood as possible.

"It may not be generally known that during the Commonwealth," to use the words of Furney and Wantner, "the total destruction of the cathedral was intended, and the persons who designed it had agreed amongst themselves for their several proportions." The little cloisters and the lady chapel were begun to be pulled down, "instruments and tackle provided for to take down the tower, but owing to the exertions of Mr. Dorney, and the influence of Captains Dunn and Pury, and Mr. Shepherd with Cromwell, it was granted to the Mayor and burgesses in 1657."

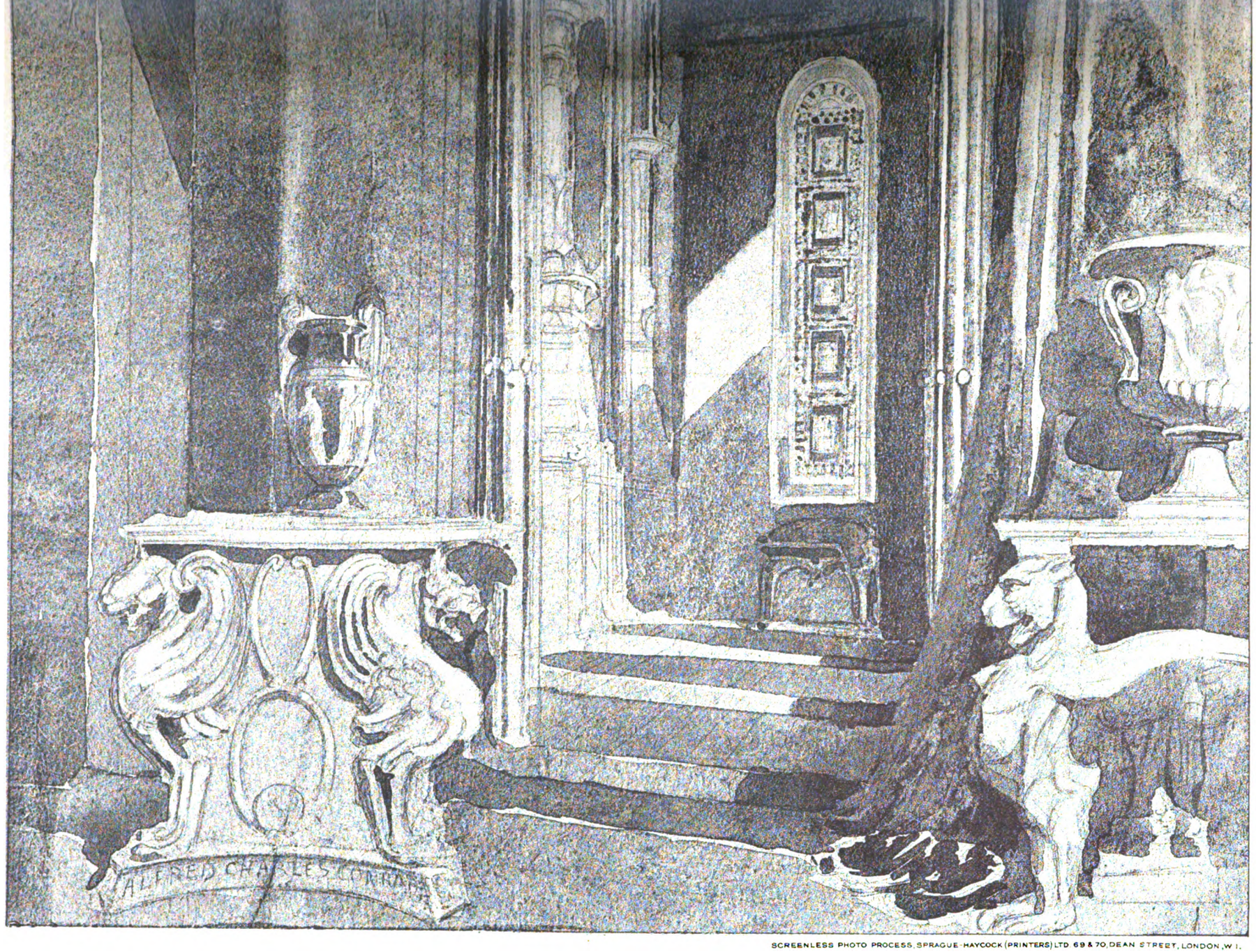
The ground plan of the Norman church included the nave and aisles, choir and sanctuary, short transepts with apsidal eastern chapels, and a choir aisle, or procession path, terminating in three eastern chapels, also apsidal. With the addition of the lady chapel and the cloisters this ground plan still remains as in the early part of the twelfth century. The Norman work throughout the building belongs either to this original church, built by Abbot Serlo and dedicated in 1100, or to the restorations after the fire of 1122. The tower is carried on the four

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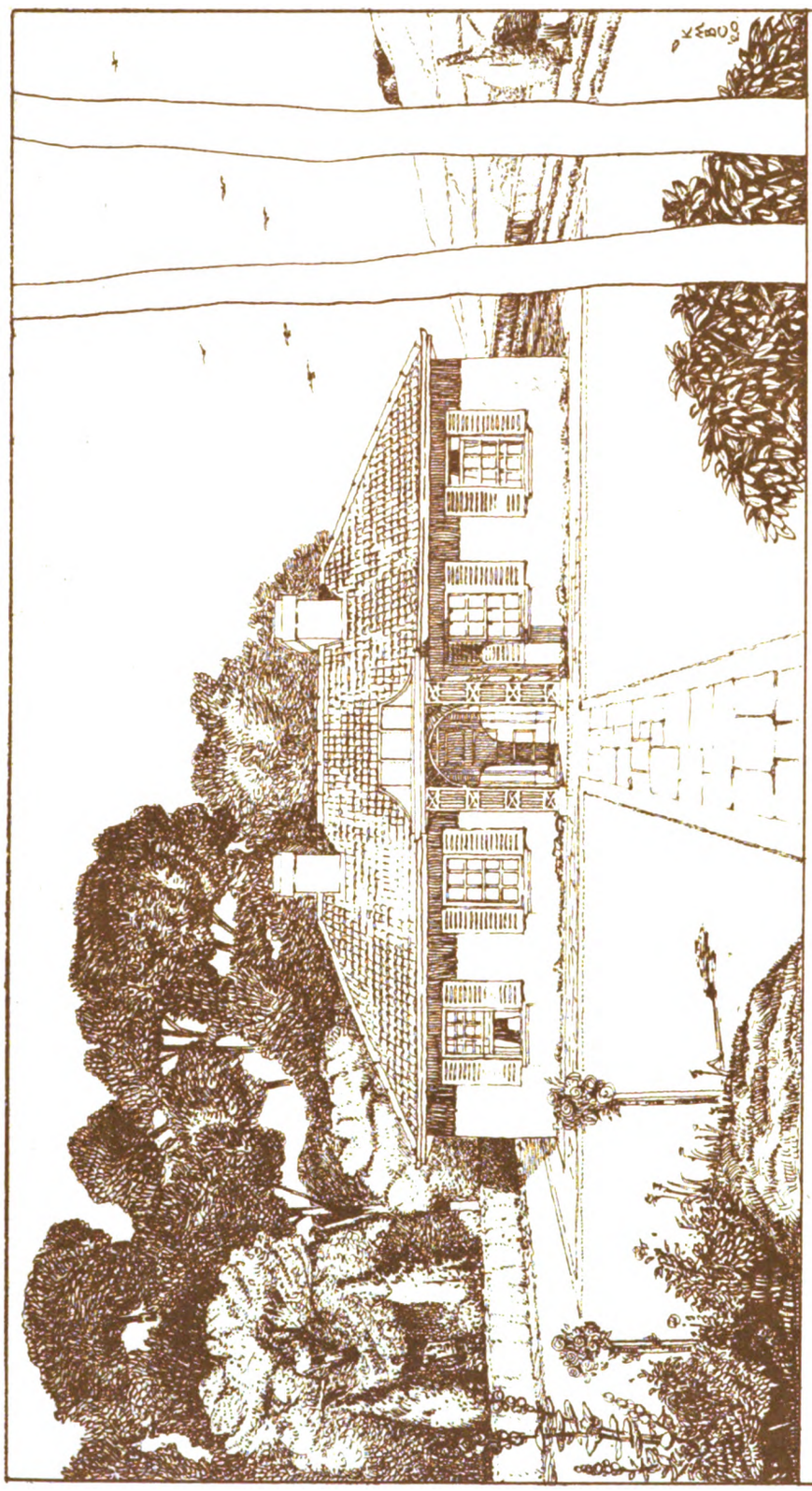
SOANE MUSEUM: THE GALLERY OF THE SOUTH DRAWING ROOM.

FROM A DRAWING BY ALFRED C. CONRADE.

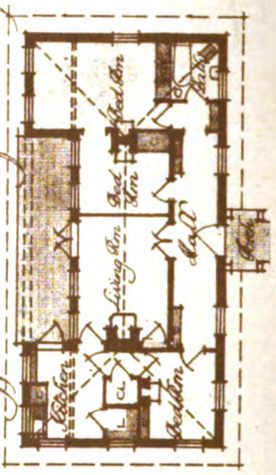
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Bungalow at Byfleet, Surrey. View from Road.



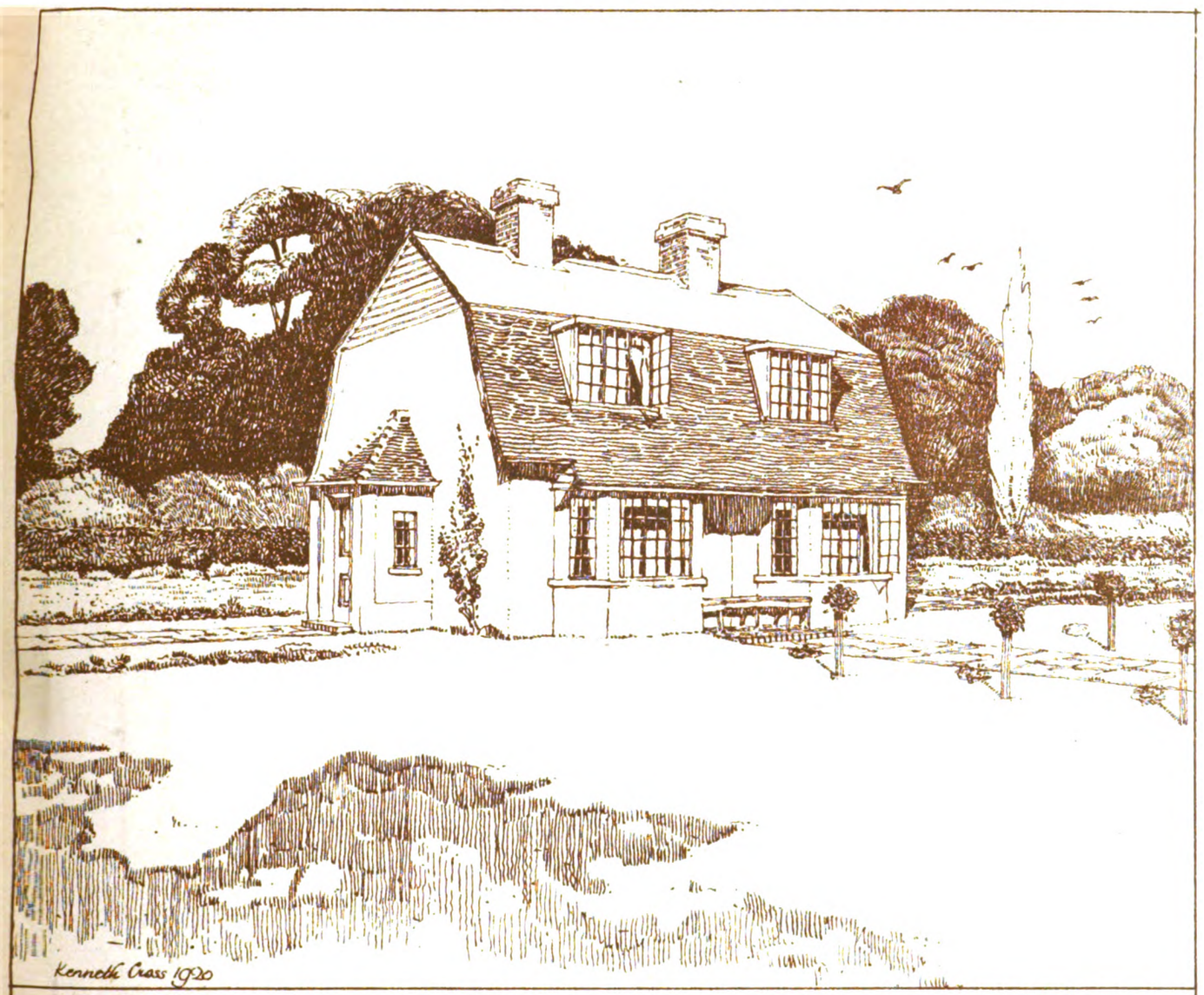
Alfred W. S. Goss, M.A.R.I.B.A.
Kenneth M. B. Goss, B.A., Architects,
46 New Bond Street, London, W.

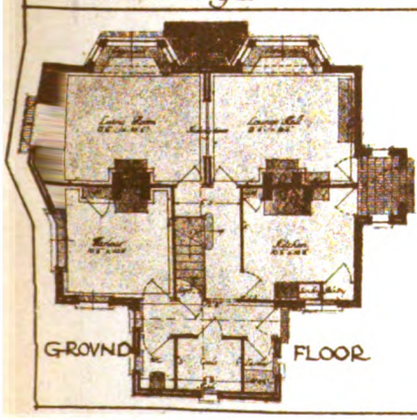
DESCRIPTION

The walls are built of two thicknesses of 3" concrete blocks and are rendered on the outside & plastered within and the roof is covered with dull coloured pan tiles. The chimneys are of brick and the Georgian sash Windows are painted white. The shutters & bells-pond are green.

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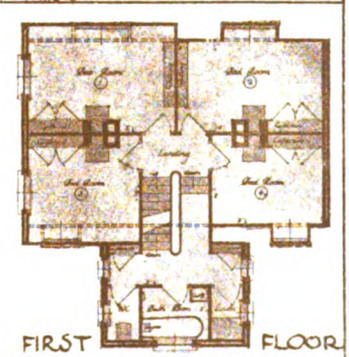
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House at Abingdon
(View from Garden)

Alfred. W. S. Cross, M.A., F.R.I.B.A.,
Kenneth, M.B. Cross, B.A., Architects,
16 New Bond Street. W.



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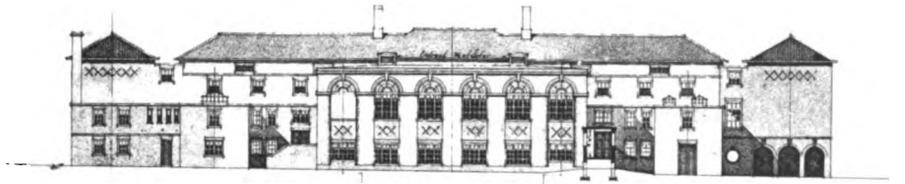
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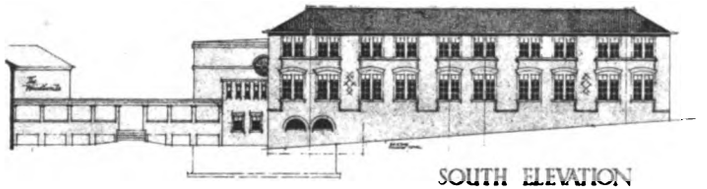
DESIGN for GIRLS HIGH SCHOOL: BURTON-ON-TRENT



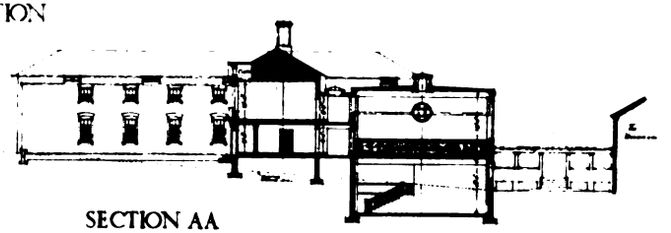
EAST ELEVATION



WEST ELEVATION



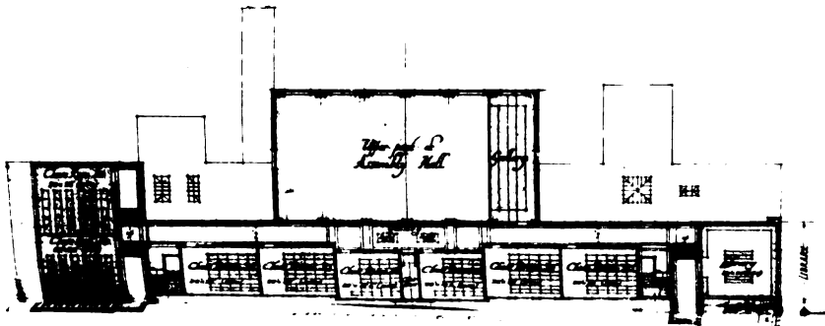
SOUTH ELEVATION



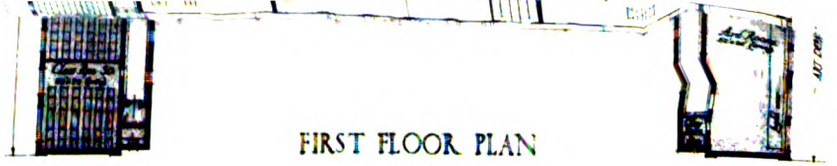
SECTION AA



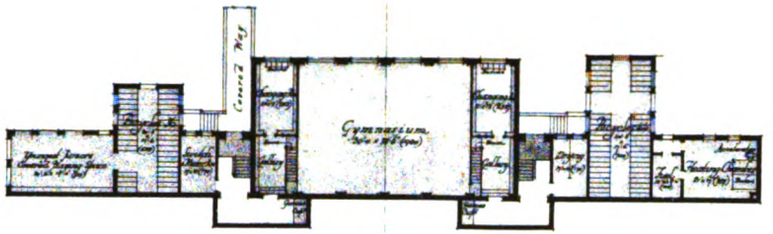
SECTION BB



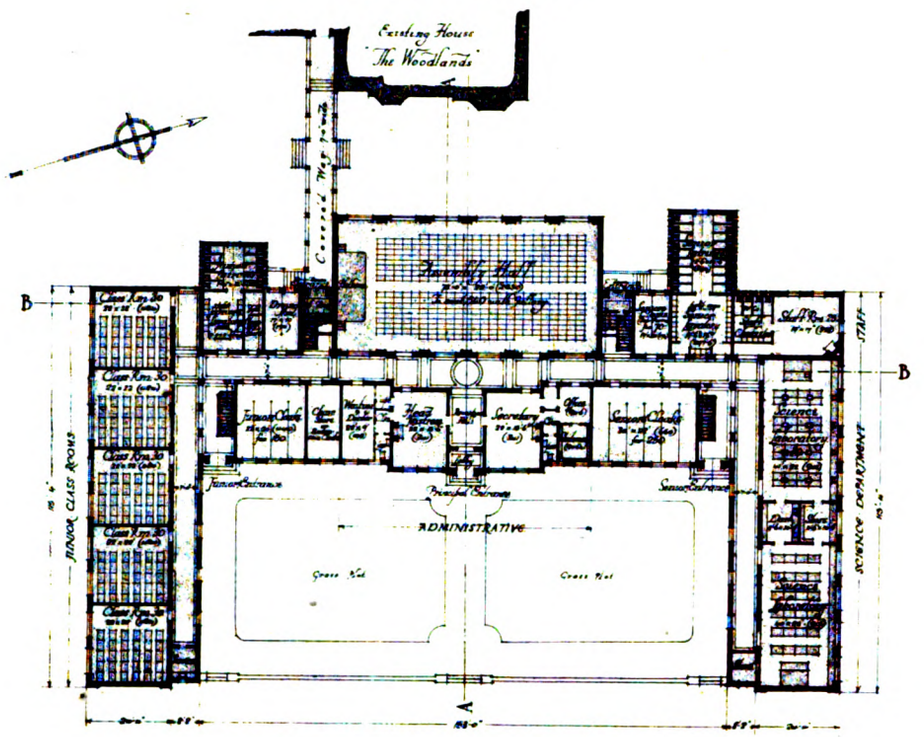
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FIRST FLOOR PLAN



SUB GROUND PLAN



GROUND FLOOR PLAN

Scale of Feet

DESIGN BY

ALBERT SCHOFIELD
F. MORRALL MADDOX

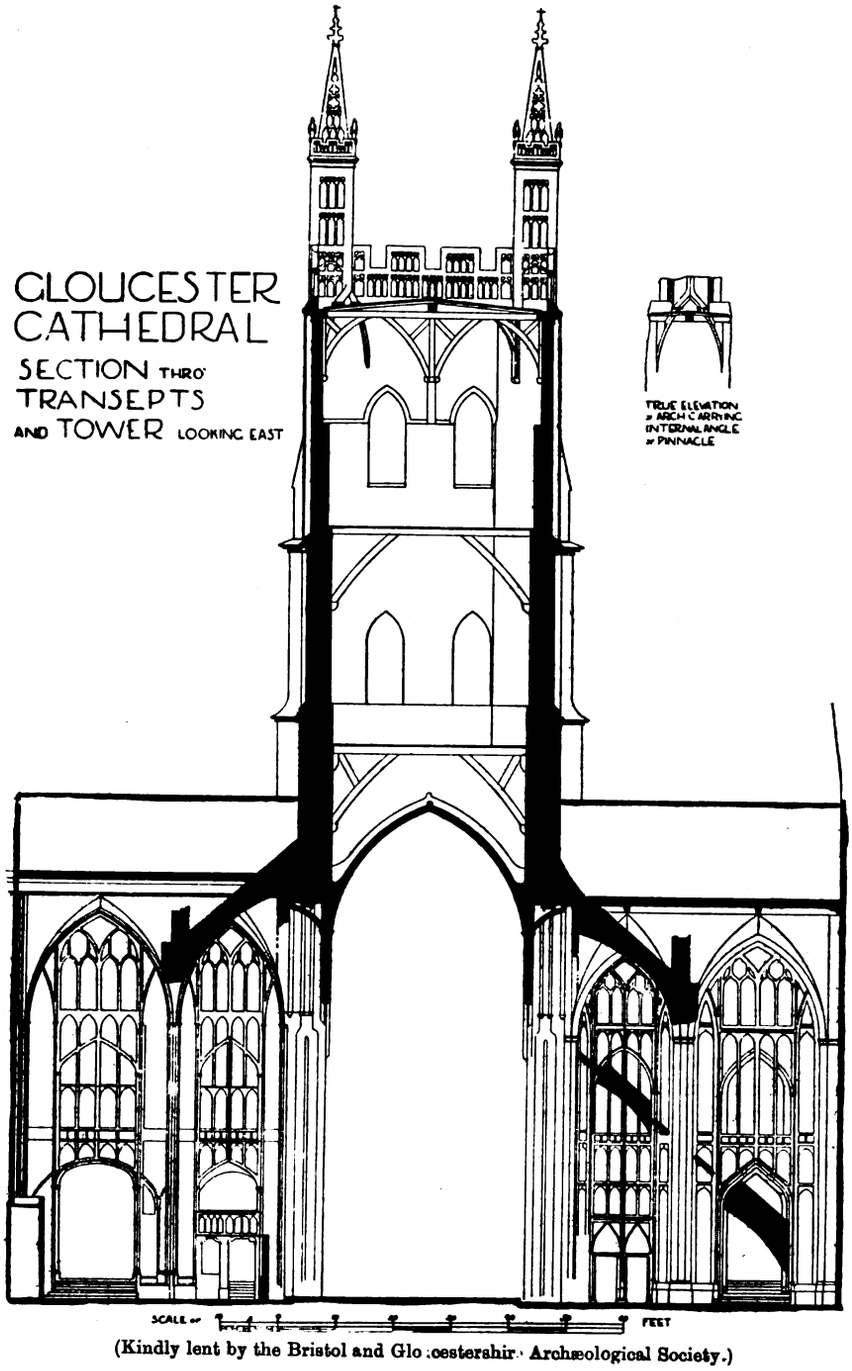
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BURTON-ON-TRENT GIRLS' HIGH SCHOOL COMPETITION.

DESIGN BY ALBERT SCHOFIELD, M.S.A., AND F. MORRALL MADDOX, A.R.I.B.A., M.S.A.

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(Kindly lent by the Bristol and Gloucestershire Archæological Society.)

large piers at the crossing of nave and transepts and choir.

Our Norman ancestors paid but little attention to that which in the present day has become an axiom, "do not trust to old foundations to build upon," as in all cases they have re-used them when required for their new works. The most important instance of this is the central tower. The original Norman tower was probably somewhat similar to that at Tewkesbury Abbey, and might have been about one square in height above the apex of the then roof of the choir. This tower was taken down, and in the fifteenth century the present tower was erected, of much less thickness of masonry, no doubt, but of at least double the height, as measured from the choir roof; and the whole of it borne on the original twelfth-century foundation assisted, it is true, by flying buttresses carried skilfully and with great picturesque effect across the openings in the transept walls.

The only early authority on the architectural history of the building, apart from the building itself, is Abbot Froucester's (1381 to 1412) Chronicle of the Abbey. According to this the choir was cased and vaulted by Abbots Staunton (1337-51) and Horton (1351-77). This work must have also included the lower portion of the tower (as far as the roof) since there is no break in the vaulting and the work is of the same character throughout. As far as the springing of the flying-arch that carries the groining, the piers of the tower are Norman, and to this point the walls of the tower, choir and presbytery were taken down.

The masons of the Middle Ages were perfectly practical and most ingenious men; they worked experimentally; if their buildings were strong enough there they stood, if they were too strong, they also stood, but if they were too weak they gave way, and they put props and built the next stronger. That was their science, and very good practical science it was; but in many cases they imperilled their work and gave trouble to future restorers.

The tower of Gloucester may be compared with the central tower of Canterbury Cathedral of later date (Gloucester 1450-60, height 225 feet; Canterbury 1495-1517, height 235 feet), and of more massive character. Both towers form admirable centres to the masses of building clustered round them, and well illustrate the great advantage (which English architects alone seem to have appreciated) of placing the principal features of their churches on the intersection of the nave with the transept. But the light and graceful tracery of the parapets and of the pinnacles of the tower is that which gives especial character to the exterior of Gloucester. There is said to have been another tower and spire, but no evidences have been discovered.

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As already stated, the tower is built upon old foundations, and so far as is known no addition was made to these foundations; they probably rest on hard blue clay, but peat is known to exist eighteen feet below College Street. The first forty-seven feet of the tower piers from the ground upwards is Norman masonry, composed of a core of rough work of different kinds of stone, with a casing of ashlar stone of varying thicknesses, which has been in some respects cut about and altered.

It may be that even when the choir groining was finished (1377). as also the continuation under the tower, the builders had not fully decided what the detail of the new tower should be, or in the interval between then and 1450, when it was built, their ideas may have altered and enlarged.

The new work does not fit accurately over the old—the internal lines of the walls set six inches inwards over the lines of the piers below, and the external lines of the walls 1 ft. 10 in. inwards back from the external lines of the piers; thus it will be seen that not only may the piers be of questionable capacity for their work, but the superstructure bears unequally on the piers, this being an additional element of weakness. The admirable effects of light and shade on the tower are produced by the bold projection of the buttresses and the deep recessing of the windows and mouldings; but this was achieved only by adopting the lightest possible construction. There were gradations in the thickness of the stonework at the several stages. The solid walls immediately above the groining are 5 ft. 6 in. thick; those of the chamber above containing the great bell 3 ft. 6 in. thick; those of the lower stage of the belfry over 2 ft. thick, and of the upper stage of the belfry from 8½ in. to 10 in. according to position. These measurements refer to the solid part of the walls on the several faces, exclusive of the projections of panel work and buttresses. But even allowing for these latter, the slightness of the structure is most remarkable, and especially so looking to the great size of the tower and the large pinnacles carried on the angles, for it must be borne in mind that not only has the actual dead weight to be considered, but there is another most important factor with a building of this size and in such a position fully open to the effect of great gales, viz., that of wind pressure.

Lesser elements of weight and disturbance have also to be allowed for; the bells and floors add appreciably to the former, and the sway and vibration of the bells when a peal is being rung are really an unknown quantity. It is said that before the bells and framing were put in order some few years since, that if a bucket of water was put in the centre of the tower roof, filled to within an inch of the top, the vibration and sway when a peal was being rung was sufficient to slop the water over. Such is not the case now, as the effect has been tried recently, and the movement of the water was small.

The builders of the tower seem to have recognised that they had but little margin of safety in their new work (very little according to modern views), and to assist in securing stability they introduced flying buttresses wherever they could be adopted, and they did not hesitate to carry them across openings or windows, or in fact anywhere that seemed desirable. Whether this was done on any definite principle, and after due calculation, or merely as seemed best, it is difficult to say, but some of the buttresses are so slight as to be of very little practical value. To further reduce the weights on the old work, the vaults were in part constructed of "puff" stone, a very light material.

The buttresses radiating from the tower to the north do not project out nearly so far as those to the south, and are less in number. This may be due to the fact that the south side, and especially the south-east angle of the tower, is weaker than the rest, and has shown more movement. This weakness may have been recognised at the time and efforts made to counteract it. One reason why the south-east angle is weaker is that it contains the staircase, the walls of which are very slight; again, the variation may have been consequent on the greater extent of building on the north side, which in itself appeared to constitute a buttress in that direction.

The section through the north and south transepts and looking eastward (see p. 111) indicates very clearly the great difference between the north and south sides, and the increase of strength on the latter. It will be observed that the large and massive buttresses are internal, and cross the openings of the arches between the transept and St. Andrew's Chapel below, and between the transepts and triforium above, and this in the most independent and utilitarian fashion, and without any regard to appearance.

From the south aisle one may view the only internal buttress on the west side of the south transept, and that corresponds to the upper one across the triforium arch on the east side, the support at the lower level being obtained from the solid external wall, but outside that wall are further supports at a higher level. In the north transept there are no internal buttresses at all, and only two light external ones high up. In addition to what may be termed the direct buttresses inside are the angle or oblique buttresses in the north and south triforium, going up to and assisting in the carriage of the great angle projections of the tower. These projections are otherwise carried on the south-west and north-west angles.

As may be supposed with a highly ornate building, so lightly constructed, and which has stood for more than four hundred and fifty years, much of it is well put together, but some parts, on the contrary, are very defective. For example, on some of the lesser buttresses there are straight joints in the masonry, with no bond whatever for many feet. The backs of some of the canopies were so arranged so as not to throw off water properly, and considerable damage has occurred in consequence. It is a curious fact that some of the great horizontal courses have no proper drip beneath, the result being that water which should have been thrown off and fallen clear has dribbled down on the stonework below and decayed it, and again, some of the jointing of the masonry is curiously arranged, and not to best advantage.

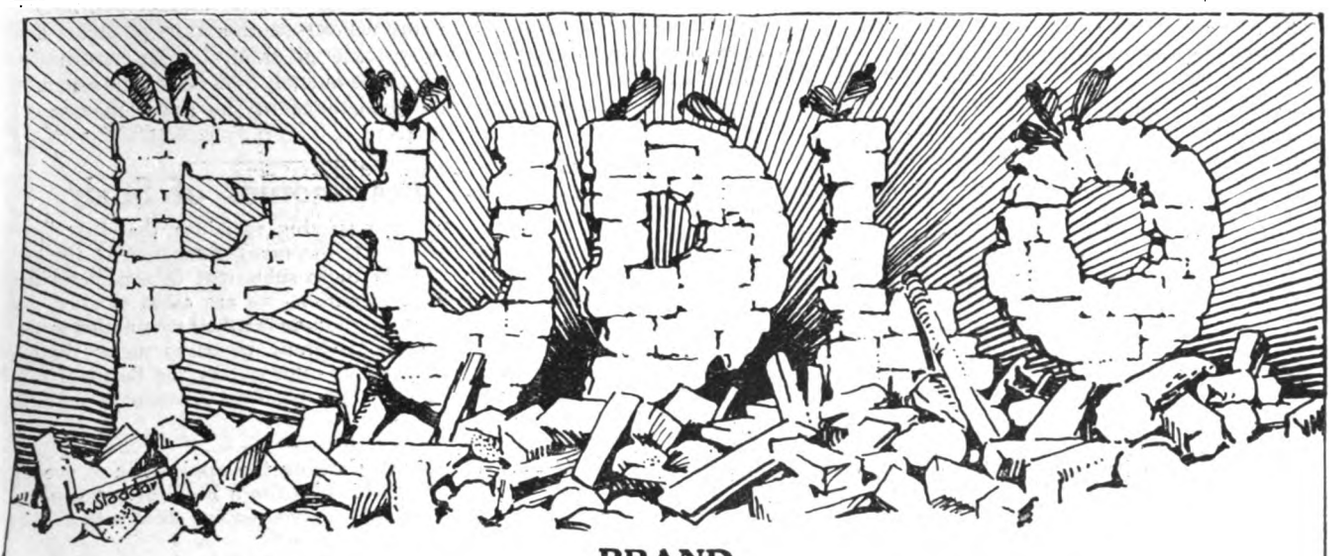
In order to fully gauge the position as regards the actual stability of the tower, and to ascertain if possible whether the defects which had shown on the great piers and work in the choir were attributable in any degree to crushing, an attempt was made to calculate the weight of the structure resting on the four piers. This was an extremely difficult calculation to make, and the result can only be roughly approximate on account of the large number of projections and panels and openings in the several stages, and the very light and open character of the parapet and pinnacles; but the result showed that the weight on the four large piers which support the tower is much greater than we should put upon them at the present day.

As nearly as could be ascertained, the weight of the tower, including the roof and floors, bells and framing, with the groining and arches as seen from the choir, would be over 4,500 tons, being more than 1,100 tons to each pier, and this is on Norman rubble masonry cased with ashlar. This may well account for some of the movements and cracks which have taken place in the past, and especially so when the influence of wind pressure and earthquake shocks, even light as they are in this country, are taken into consideration, and there is a further point, that the later superstructure does not stand fairly over the old Norman piers, but sets inwards upon them.

In considering these facts, it must not be forgotten that although the load is much in excess of what we should now place on masonry of this class, yet the actual crushing weight would be several times as great.

To still further appreciate this position, calculations were made to ascertain the wind pressure on the west side of the tower at given velocities. The area taken was from the level of the nave roof to the top of the parapet, and omitting the pinnacles. The pressure in tons was approximately as follows:—

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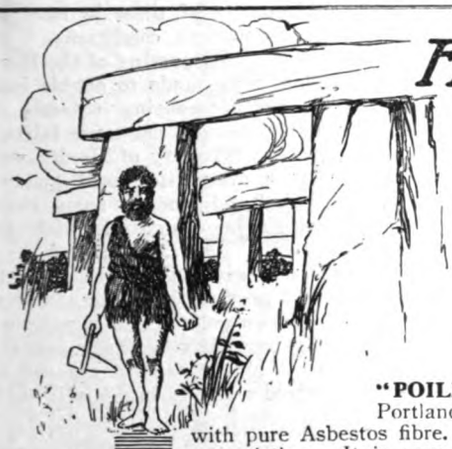
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With a wind of thirty miles per hour velocity the pressure is about seven and a-half tons on the whole side of the tower, or twelve tons diagonally, i.e., with a south-west wind. With a wind of sixty miles velocity the pressure is about thirty-six tons on the whole side of the tower, or forty-five tons diagonally.

Since the Tay Bridge disaster in December 1879, the Board of Trade require an allowance for wind pressure of 56 lb. per square foot on railway bridges. On this basis a pressure of 115 tons would have to be allowed for on one side of the tower, or 162 tons diagonally.

Having ascertained the main factors of the case, the first thing done was to fill in the whole of the settlements and cavities with a kind of plaster which would easily crack and show the slightest movement, and this was examined daily for many weeks, but no movement whatever was detected. Meanwhile the ringing of the bells had been forbidden. Then an experiment was tried by having the full peal of bells on for an hour, and a careful watch was kept inside the building on the scaffold, that the bells might at once be stopped if the vibration from them caused the slightest change in the conditions. Buckets of water were also placed on the roof of the tower to indicate the extent of the sway, but the water was affected very little indeed, and there was no indication whatever of movement in the tower or choir. After this a further watch was kept, extending over several months, to judge whether the wind pressure exerted by the spring gales on the faces of the tower produced any effect, but such was not the case. When it was further evident that the structure was not moving from any other cause, then the work of investigating the full extent and nature of the damage was begun by the removal in small sections of the detached and broken stonework, and it was found that a quantity of the large and prominent moulds adjoining the window, some of the groining ribs and the face work, were badly crushed, and that settlement extended for some distance inwards. All this work had to be withdrawn in short sections, a difficult and dangerous task, and replaced with new where the old was too much crushed for re-use. When the upper parts had been secured the top scaffold was withdrawn, and the next section of the wall and mouldings was opened for repair. It then became apparent that the defects extended all down the face of the tower pier, and that large pieces of what remained on the half-round Norman mould and of the later rolls at the sides were detached, and might easily have fallen. Their condition must have been known in comparatively recent times, as an attempt had been made to wedge up some of the stonework with wooden plugs, and in other places long iron nails had been used.

The work of repair on the south side having been finished, the scaffolds were erected in a similar position on the north side of the choir, and a careful examination showed that although the condition of the stonework and of the groining above was much better than on the south side, yet considerable movement had at some time taken place, and that as regards the moulded work on the face of the main pier, there was little if any difference between the two sides of the choir.

The scaffolds were subsequently erected to the western piers of the tower, and the condition of the stonework was found to be similar to that of the northeast pier, and the necessary reparative works were carried out.

It would appear, as before stated, that the tower is weakest at the south-east angle, as so far that has shown the greatest signs of injury. The transept wall and arches and flying buttresses, which come against this angle, all show signs of movement, and the staircase turret which terminates the wall is about eleven inches out of upright at the top, leaning away from the building.

The settlements and damage to stonework which have taken place at the junction of the tower and choir, at the sides of the first windows eastwards, are possibly due to an inequality of settlement as between the heavier mass of the tower and the lighter work of the choir. But one of the most satisfactory features in the whole matter, and one which has given perhaps more confidence in the tower than anything else, is the fact that neither of the light stone arches across the transept arches has been affected to any material extent. The construction and arrangement of these is such that had there been any great and unequal settlement in the tower these must have been dislocated.

Revised Testimonies of Study.

Referring to the accompanying revisions that have been made by the Board of Architectural Education in the list of Testimonies of Study to be submitted by candidates for the Intermeditate Examination, we are asked to draw the attention of intending candidates for the examination to the fact that Testimonies of Study prepared under the old syllabus will be accepted for approval by the Board if submitted prior to the next Intermediate Examination to be held in June 1922.

The revisions are as follows:—

1 and 2.—Two sheets showing the application of one or more of the orders of architecture to a building. A general drawing of the building to be given on one sheet with details on the second.

3, 4, and 5.—One sheet of details of classic ornament from the round or one sheet of mediæval ornament—freehand drawing from the round. Two sheets of measured drawings of an existing building or portion of a building, to be selected by the candidate, with the plottings and sketches.

6, 7, and 8.—Three sheets of working drawings of a building of moderate dimensions showing clearly the construction of floors, roofs, joinery, &c. The general drawing to be drawn to the scale of 8 ft. to 1 in. with ½-in. and full-size details.

Building By-laws.

The Ministry of Health have issued the following memorandum:—

One of the difficulties which beset builders of to-day proposing to build houses is the existence of by-laws which were framed at a time when the inherent difficulties of building were far less acute—by-laws which do not take into account the progress which has been made in the development of new methods of construction. Complaints have been made that some of the requirements of these by-laws are antiquated and inappropriate to modern conditions.

This was foreseen at the time of the passing of the Housing Act of 1919, and provision was made to enable local authorities, in the carrying out of housing schemes, to depart from their by-laws and to permit the same latitude to other developers. Further, the Ministry of Health were empowered to make regulations overriding local by-laws, and these were framed on a broad and generous basis, limiting the restrictions to the minimum compatible with due regard to life and health.

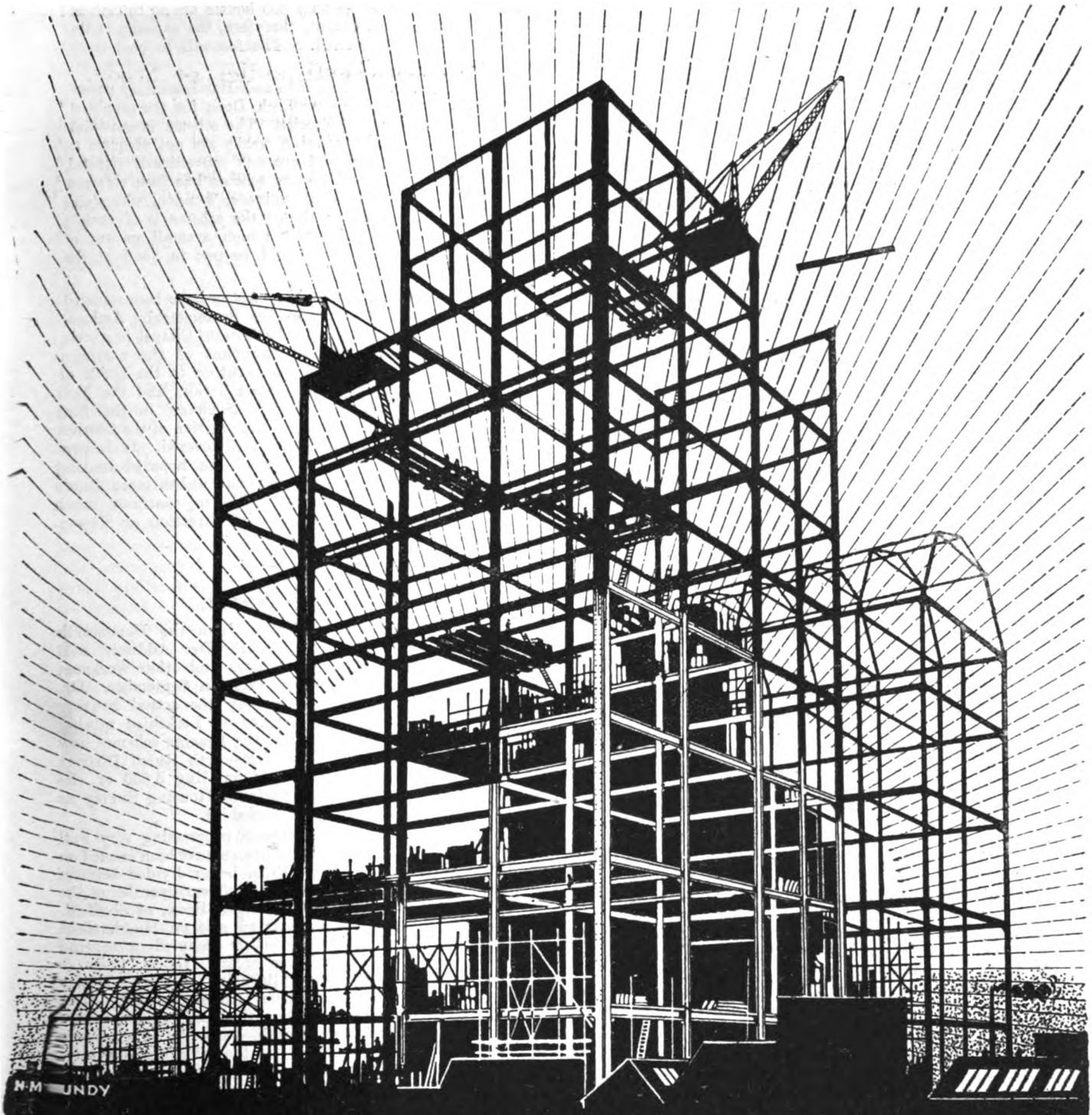
Moreover, a right of appeal is given to the builders, in the event of the local authority proving unwilling, fully to avail themselves of the wider powers. It is significant, however, that there have only been fifty-five such appeals, which clearly proves that most municipalities are willing enough to grant the much-desired relief to builders in their districts.

"The Architect" Fifty Years Ago.

August 19, 1871.

It is believed that a scheme will shortly be propounded to the Corporation for the construction of a new market for fruit, flowers, and vegetables in some central part of the City, into which both the salesmen of Farringdon Market and those of Covent Garden, who are said to be equally anxious for the change, may remove. What form the proposal will take is not yet definitely known. In some quarters it is urged that the new market should not be erected upon the present inconvenient site in Farringdon Street, but upon a plot of ground in Farringdon Road, to which there would be three wide and suitable approaches. The adjacent railway communication would also, it is said, be most valuable. The site is already cleared and made level, and it has been lying idle for some years. On the other hand, it has been proposed to excavate the present site of Farringdon Market, and to build, first of all, a market for fruit and vegetables, and above it, and on a level with Shoe Lane, a flower market. To this proposal some objections have been urged, especially on the ground that it would be useless to construct a market for fruit in a confined position, and that the site is practically hidden by the surrounding buildings.

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Associates' Committee, R.I.B.A.

ARISING out of a meeting of Associates R.I.B.A., held on June 7 last, a Committee was appointed to consider the unification and registration proposals.

The Committee consists of:

Chairman.—Stanley Hamp.

Hon. Secretaries.—L. H. Bucknell and H. G. Fisher.

Members.—H. W. Cubitt, W. R. Davidge, J. L. Elkington, K. Gammall, P. W. Hubbard, S. H. Loweth, A. W. Sheppard, J. D. Scott, M. Waterhouse, and H. A. Welch.

Representatives of Societies.—J. H. Worthington (Manchester), L. B. Budden (Liverpool), A. L. Snow (Birmingham), and J. I. Jones (Bristol and South Wales).

Other allied Societies have been asked to send representatives so that the report should be as representative as possible of the feelings of the Associates throughout the country.

Several meetings have been held, and the Committee hopes soon to complete its report.

General.

PLANS have been approved by the Borough Council for the erection of cinema theatres in Regent Street and at the junction of Princess Street and New Street, Barnsley. The architect is Mr. P. A. Hinchliffe, F.R.I.B.A., Barnsley.

THE Orsett Joint Hospital Board have adopted amended plans for extensions, prepared by Mr. H. A. Porter, architect, which are estimated to cost £5,750. The original scheme involving an outlay of £87,000 was turned down by the Ministry of Health.

IT is announced that for British subjects travelling by the Great Eastern Railway Company's special week-end excursions at reduced fares to Belgium, viâ Harwich-Zeebrugge, a passport is no longer essential. These excursions provide a clear 18-hour Sunday in Belgium.

ALTERATIONS and additions are to be made to the "Empire" Theatre, Goldthorpe. The architect is Mr. P. A. Hinchliffe, F.R.I.B.A., Barnsley. The plans have been approved by the Bolton-on-Dearne Urban District Council.

PROGRESS is being made with the scheme for the erection of a Masonic Hall on the site of the old Queen's Theatre in Bridge Street, Manchester, at a cost approaching £150,000, in commemoration of those Masons of the province of East Lancashire who laid down their lives in the great war.

MR. EDMUND VAUGHAN, J.P., of Maidstone, Kent, head of Edmund Vaughan, Ltd., wholesale ironmongers and builders' merchants, a member of the town council since 1884, mayor in 1899 and 1906, who died on June 2, aged sixty-five, has left property of the gross value of £22,505. Mr. John Henry Cox, builder, of Coventry, left property of the value of £14,000.

THE winning and other designs for the Victory Scholarship Competition, 1921, are on exhibition at The Society of Architects' headquarters, 28 Bedford Square, W.C. 1, from 10 A.M. to 5 P.M. daily, and will continue to be on exhibition until the closing date is announced. All members of the public interested in the subjects of the scholarship are invited to visit this exhibition.

THE Council of the Royal Institute of Architects of Ireland forwarded to the Council of the Dublin Industrial Development Association suggestions with regard to the adoption of a standard stone for building. The idea is that, by having stone supplied in regular shapes and sizes, varying sufficiently to prevent an inartistic uniformity, it would be possible to have stone stocked by merchants just as bricks are. The matter was referred to the Quarry Owners' Committee.

THE foundation-stone of a Dominican Priory to be built at Oxford was laid by Cardinal Bourne on the 15th inst., the anniversary of the coming of the Dominicans to Oxford in 1221. The site is on the west side of St. Giles, opposite St. John's College, three houses, Nos. 62, 63, and 64, with gardens at the rear, having been secured. The new priory will be known as the Dominican Priory and Conventual Church of the Holy Ghost. The building operations will occupy three years or more, as the money is forthcoming. The architect is Mr. Doran Webb.

THE charge for the central hot-water supply laid on to new houses in the Blackley (Manchester) housing estate has been fixed provisionally by the Housing Contract Sub-Committee at 1s. 6d. a house a week. This amount will not cover the expenses of the installation, which was designed to meet the needs of 2,000 households; under the Government's new policy only 300 houses are to be built on the site, and to some extent, therefore, the capacity of the installation will be wasted. The fee will be paid as an addition to rent.

AYR CORPORATION propose to seek Parliamentary powers for obtaining waterpower at Loch Doon for the supply of electric current for the district. The scheme is estimated to cost £250,000. The existing works are not adequate to the needs of the town, and are not conveniently situated for extension. A report on the scheme has been obtained from Mr. Rider, consulting engineer, London, who states that he is of the opinion that "the scheme is of such a promising character and involves such a small amount of engineering works that it should be put in hand at the earliest possible moment."

THE excavations at Glastonbury Abbey have been resumed since the beginning of July by the Somersetshire Archæological Society. The work at the Loretto Chapel is nearly completed, and more of the pavement of the northern transept has been found. An excavation to the north of the existing Lady Chapel has been begun, and the base of the pillar, which, according to Spelman in the first volume of his "Concilia," marks the position of the Church of Joseph of Arimathea, has been discovered. It is proposed to continue the work here in the hope of finding some foundations of this church; but unless more funds are forthcoming it will be impossible to continue much longer. The work is under the joint direction of Messrs. F. Bligh Bond and Sebastian Evans.

Housing News.

IN response to an invitation from the Hemsworth (Yorkshire) Rural District Council, Dr. Addison will address two mass meetings of miners and other workmen at Hemsworth and South Kirby early in September. Dr. Addison will at the same time study the actual housing conditions prevailing in a number of Yorkshire mining villages, and will visit several of the housing schemes now being carried into effect. The Hemsworth Rural District Council has in hand the task of building 3,500 of the 85,319 houses included in the National Housing Survey as needed in the West Riding of Yorkshire.

BARNSLEY at the present time is progressing very well with its housing schemes. Thirty houses have been erected on a site in Racecommon Road, these being divided between four or five local builders, the borough surveyor being the architect for them. Messrs. Wellerman Bros., of Sheffield, are building 283 houses on a large site on Huddersfield Road, about 100 of which are either occupied or nearing completion, the architects being Messrs. Dyson, Coles & Cawthorne, 10 Regent Street, Barnsley. Messrs. Walter Dunk & Sons, Peel Street, Barnsley, are erecting 100 houses on the Dorman and Long system, the architect being Mr. C. F. Moxon, Regent Street South, Barnsley. The site on which these are being erected is the Wilthorpe Estate, Huddersfield Road, Barnsley, and on the same estate ninety brick-built houses are going to be erected, the successful contractor being Mr. William Malthouse, of Sheffield.

THE second annual report of the Ministry of Health, published this week, emphasises at the outset the fact that schemes involving fresh outlay of public money must be curtailed or deferred in face of the paramount need of economy in national expenditure. On the housing question the report states that the provision of adequate and efficient labour was a constant source of anxiety, somewhat relieved by a progressive improvement in the situation towards the close of the period under review. The cost of materials, with few, but important, exceptions, was affected in harmony with the general fall in prices, and no effort was spared to secure that the contracts entered into should give the ratepayer and taxpayer a corresponding measure of benefit. Local authorities made great exertions to secure financial assistance from their own areas to meet their housing needs, and over seventy million pounds had in various ways been raised by such authorities with this object. At the close of the year the number of houses completed under the schemes of local authorities was 25,878, and 13,703 houses had been completed by private builders with the aid of the Government grant.

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VOL. CVL—2749. THE ARCHITECT AUGUST 26, 1921.

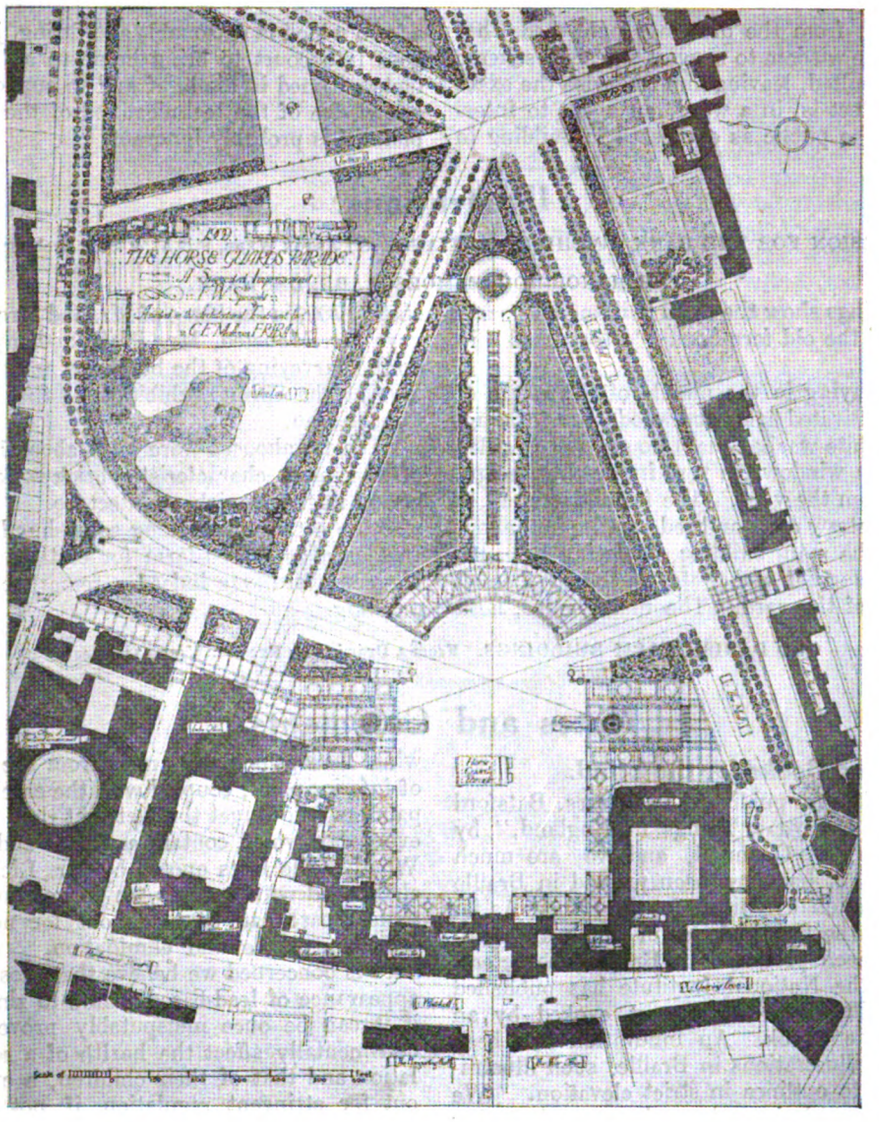
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The Horse Guards' Parade Improvement.

We give elsewhere the paper which Mr. F. W. Speaight read before representatives of the Press, in which he describes the proposal made by him, and brought before the Departmental authorities, for the replanning of the Horse Guards' Parade and the adjacent portions of St. James's Park. This we illustrate by a plan and view by Mr. C. E. Mallows, who prepared a scheme on the instruction of Mr. Speaight.

We are glad to say that the proposals have—at least in general outline—been accepted by the authorities, and Mr. Speaight must be congratulated on the energy and determination by which he has effected a great public improvement.



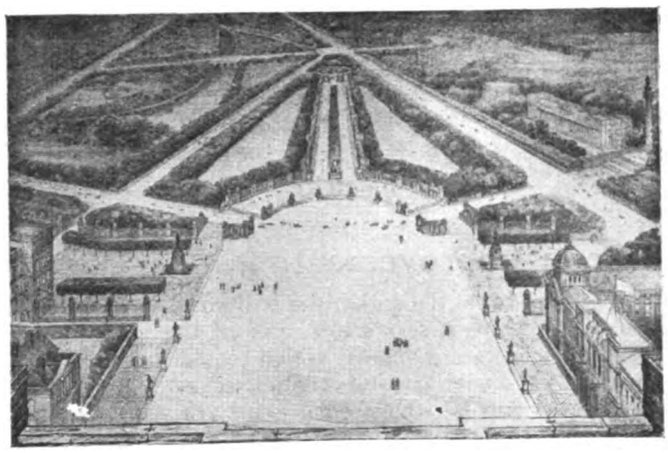
He refers to the work he did in connection with the Marble Arch improvement, but, although we fully admit that from a traffic standpoint the alterations effected are an immense improvement, we have always regretted the retention of the Marble Arch itself. An archway which does not serve as an entrance is, to our mind, a "folly." But this involves no criticism of Mr. Speaight. He was perfectly correct in assuming that as the Arch existed it would be fatal to propose its abolition, though had it been consigned to a firm of house-breakers the world would not have been architecturally poorer. As it stands it only serves to bring to our mind the beauties of other triumphal arches elsewhere by the entire absence of all architectural distinction in its design.

But no such modified commendation need be given to Mr. Speaight's second proposal as outlined by Mr. Mallows, as it is consistent and in every way architectural, and the total cost was given by a firm of quantity surveyors in 1909 as £58,000—not a large sum for an improvement which would give a new and finer aspect to a great area in Central London. As much of the work involved could be carried out with unskilled labour, it is to be hoped that the authorities will put it in hand in the near future, as it seems to be one of the moderate and reasonable improvements which could be reasonably carried out under existing conditions.

Improvements which chiefly involve the rearrangement and redistribution of open spaces may often enormously enhance the appearance of a city, and are precisely those which we should try to effect. On a smaller scale, we may mention one to which reference has been previously made as being in this category—the replanning of the awkward and irregular elliptical enclosure in Trinity Square, to bring it into harmony with the Port of London's new building, which calls for a central avenue axial with the Tower, and enabling a view to be obtained of the offices from the Tower and *vice versâ*. This, indeed, need only involve the cutting of a broad avenue within the garden itself, with gateways at the ends, and the rearrangement of the curved outline of the gardens in relation to the axial line of the centre avenue. The stout opposition often made to these comparatively slight alterations is a sign of mental laziness rather than of an affection for old traditions, and, if our towns are to be improved in the future, needs elimination.

We think Mr. Speaight is wrong in anticipating any adverse criticism from the profession because he does not belong to its ranks. The best architectural designs frequently owe their genesis to some outside suggestion of requirements or some amateur idea of the manner in which those requirements should be met. Most architects can only do their best work when they are working definitely to find the solution of some problem put before them. What an architect does object to, and rightly so, is to see work which requires technical knowledge and training carried out by those who do not possess it. But

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Mr. Speaight's Scheme.



The Office of Works Scheme

THE HORSE GUARDS' PARADE IMPROVEMENT.

it may be supposed, from the drawings published, that Mr. Speaight had the wisdom to suggest a general scheme to the architect consulted, leaving him to devise the exact solution. An architect is, in a word, an agent to interpret the wishes of the public as expressed in building in a form which is reasonable and fitting, just as the barrister goes into court to bring home to a judge and jury the facts outlined in his brief and to support his case by his knowledge of the technicalities of the law, of which the plaintiff is probably ignorant.

Illustrations.

DESIGN FOR THE BANK OF CHILE, SANTIAGO. Sir Aston Webb, P.R.A., & Son, Architects.

THE MANOR-HOUSE, MOESGAARD, DENMARK.

The measured drawings show the main building and a few gables and plans of the old farmhouse "Moesgaard" in Jutland, Denmark.

The buildings, laying in the middle of the estate of about 2,000 acres cultivated fields and woods, are forming, together with the white-washed main house, red pantiled and with dark brown windows, a very interesting design, dividing the park from the yard. The farmhouses, all in red brickwork, with straw roofs and red pantiles in the top, are, together with the main building, enclosing a beautiful courtyard with sundial and water-spring in a small lawn in the centre of the yard. The main house, built about 1700, is the home of Mr. and Mrs. Dahl, who kindly gave Mr. Monsted, Mr. Pfaff, and myself permission to do the surveying of the buildings and to exhibit the drawings at the spring exhibition at the Royal Academy in Copenhagen.

The farmhouses were built about 1800, and are some of the most characteristic brickwork buildings of that period in the Danish architecture. "Moesgaard" farm was the estate of the king some hundred years ago, and was used as a stud-farm for cattle and horses, and the big courtyard was indeed a remarkable place for horse-training.

Regnar Wied.

OLD DANISH FARM BUILDINGS. From a Drawing by Regnar Wied, Architect.

Notes and Comments.

Illustrated Books for the Blind.

One of the best books ever published by Messrs. Batsford is "A History of Everyday Things in England," by Marjorie and C. H. B. Quennell, and we are much pleased to learn that it has now been printed in Braille and issued by the National Institute for the Blind. As far as we know, this is the first instance in which an architectural work has been produced in Braille characters, and the fact that the National Institute has published it is a high compliment to the interest evoked by an unusually well-written book. An innovation has been made by producing illustrations in Braille, such illustrations being limited to outlines in strict elevation. We presume that this has only been done after experimenting with the sense of touch of the blind, and that the illustrations so made, an example of which we hoped to give, and shall give later, do really convey to the blind the forms represented. The experiment is a most interesting one, and will be welcomed by all who hope it will be an additional alleviation to those who suffer under that most grievous loss—sight.

The White Lead Controversy.

That hardy perennial, the controversy over the wisdom of using white lead as the chief constituent of paint, appears to be once more to the fore, and the letters we have published from Mr. Charles Line show how strong is the feeling of many against the present state of the law. It is clear to us that the danger in the use of white lead principally arises from the dry rubbing down of inferior paint, coupled with the careless habits of many painters who forget the fact that they are using materials every day which contain a violent and dangerous poison. Whether the facts quoted by Mr. Line can or cannot be challenged with success we do not know, for a fair statistical case can be made out for nearly anything by judicious choice and elimination. As far as appearance is concerned we believe that most people prefer the appearance of lead-based paints to zinc-based paints, but if it can be once indisputably proved that the former detrimentally affect the health of a section of the population and that of their children, a case would be made out for stringent regulation, if not for partial prohibition.

The Passing of the Housing Subsidy.

The 25th August was the date finally given on which the foundations of all buildings for which the subsidy to private builders was claimed had to be started, so it may be said that the whole structure of State-aided housing now lies in ruin, and the final end of the disastrous policy of meddling with land and building initiated by Lloyd George in 1909 comes to an end. That policy is initially unsound and vicious, and it is characteristic of the manner in which it has been treated that the final end should be the wholly indefensible withdrawal of the pledge given to private individuals by the subsidy when only one-third of the amount promised has been expended. The public need, however, not expect as

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prompt a winding up of the expensive administration created to administer the maze of housing measures enacted and continually revised. Economy will be sought as usual by the withdrawal of opportunities and means which are of benefit to the public, and not by any drastic reduction of officialdom, which it is the unvarying policy of the Government to defend and support. We need not necessarily expect, because one Minister without portfolio has been dispensed with, that officials without work will necessarily go, and, whatever the Census may reveal with respect to population, our readers may be comforted by the thought that the population of Whitehall will show a steady upward movement.

Higher Buildings in the City.

The London Society seems to have definitely ranged itself in opposition to the proposal to allow the erection of higher buildings in the City, irrespective of the date of foundations, but there are many sides to the question. From the standpoint of health it cannot be argued that any part of the City is now a residential district, and therefore some of the greatest objections to lofty buildings only exist in a very modified form. The area of the City cannot conveniently be extended, but the volume of business done in it is, and will be, unless national decay sets in. There may or may not be very great demands for offices at the present, but taking long views, the demand must constantly be on the increase. One way in which it could be lessened would be by the repeal of the law as regards ancient lights simply leaving the bye-laws to regulate the provision of open spaces round buildings. The main objection we see to a modified form of sky-scraper in the City is that such buildings need careful placing with regard to their lower neighbours, and it is difficult to see how any orderly system of arranging them can be made to fit in with a system of private ownership and equal opportunity. To give the owner of a building in a certain situation powers to build to a greater height than his neighbours would be to present him with an increment of value which would amount to a monopoly.

The Northfield Village Preservation Scheme.

We have received a copy of a little booklet published by the Birmingham Civic Society giving illustrations of a very pleasing little scheme for the preservation and development of Northfield Village, which lies on the main road from Birmingham to Bristol, in close proximity to Birmingham. The scheme is comprised within the general town-planning scheme for S.W. Birmingham, and a competition for a plan to preserve the village was held with the approval of the City Department. No design submitted was considered suitable for adoption, but after consultation with the City Engineer the Civic Society produced the design illustrated in the booklet, which, we gather, will be, or has been, adopted. Local steps are being taken to purchase a considerable area to be laid out as recreation-grounds, while a shopping centre is formed at the junction of five roads. The remainder of the work consists of widening and rearranging the gradients of roads, and the whole design is shown both by a coloured plan and by a quaint bird's-eye view, which we reproduce. We are glad to note the excellent relations which exist between the civic authorities and the architects of Birmingham, which is of good augury to the city.



From the Publication of the Birmingham Civic Society.

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Art News of To-day.

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In last week's issue we had occasion to mention the exhibition for the month of August at the Burlington Gallery of paintings and water-colours by Mr. L. Littlejohns, R.B.A., and reserved for this week our fuller notice. While the oil paintings—and still more the pastels (of which there are two here)—are of considerable interest, there is no doubt that this artist is most at home, most himself, in the water-colour medium, in which he has achieved such distinction. When we consider which paintings here we should ourselves wish to live with we turn instinctively to such typical water-colours of his artist as "The Grey Mill," with its wonderful space and atmosphere, to his "Evening on the South Downs" (note here how the cloud drifting lazily across the clear twilight sky gives the sense of movement, and completes the composition), and yet another Sussex subject, "The Chalk Quarry."

Best among the oil studies are the "Edge of the Cliff," with white cliffs looking sheer down into the blue seas beneath, and "Autumn, Sussex." In another "Autumn" here we get a richness of palette which recalls Tom Mostyn's colour schemes: the clever painting of the hydrangeas in "Reflections" shows the artist's mastery of the oil medium as well as of water-colour. An exhibition which is to follow in these Galleries in September of Gregory Brown's posters cannot fail to prove attractive. Another autumn exhibition which is being talked of is that of the Royal Society of Portrait Painters, who may be giving this autumn or winter an "Exhibition of English Portraiture," by permission of the Royal Academy, within Burlington House. If this proposal, of which we shall keep our readers informed, materialises, it would include the work of past members of this Society, and bring within its field the art of Watts, Millais, and Orchardson.

Rosalind, Countess of Carlisle, who died this month, had been a most generous donor to our National Gallery, to which, on her husband's death in 1913, she presented seven paintings of first importance. These included two paintings by Rubens (one of these was actually given in the year following), one of them being a portrait study of the Earl of Arundel, the "Three Maries," by Annibale Caracci, which fetched the highest price reached in the sale in London in 1798 of the famous Orleans collection, and works by Cranach, Del Mazo, Gainsborough and Mignard, with a polyptych by Barnaba da Modena. In making this noble donation the Countess wrote: "It is with the utmost gladness that I transfer these pictures from my keeping into the hands of the nation, as they will find a safe and lasting home in the National Gallery . . . with eager pleasure I hand them over."

It is interesting to note that the late Sir Edward Coates, Bt., M.P., who also died this month, besides being a most successful business man, as director of Coates, Son & Co., and a very keen sportsman, was a connoisseur and keen collector of objects of art. He possessed in his home at Ewell paintings by Gainsborough, Romney, Reynolds, Lawrence, Hoppner, and others of our English masters, for his aim was to make collections representative of British art; but perhaps his special hobby in art matters was that of coloured prints and engravings, which sometimes now fetch prices almost equal to the paintings themselves. His collection of these last was a very choice one, and included the famous Argyle collection of original water-colour drawings by John Downman.

S. B.

New Books.

"Anders Zorn: His Life and Work." By Dr. Karl Asplund. Edited by Geoffrey Holme. Published by "The Studio," Ltd., London. MCMXXI. Price £3 3*s*. Limited Edition. Illustrations in colour, photogravure, and monochrome.

The death of Anders Zorn in the autumn of last year took from our midst a very great modern artist, and one whose loss to art was as irreplaceable as it was to his many friends. A volume which should treat in a worthy manner of his achievement was a necessity, and no less so that it should be by one who could speak intimately and with authority of the man—that genial companion, that warm-blooded creative artist, whom to know was to appreciate and love—as well as of his work. The present volume by his fellow-countryman Dr. Karl Asplund fulfils admirably these requirements; every side of Zorn's creative art finds recognition, and the illustrations, both in colour and monochrome, leave nothing to be desired, save that with such fare we may be still hungry for more.

Anders Zorn achieved his great place in modern art by sheer ability and work. From the Stockholm Academy of Art he seems to have got little help or recognition; his water-colour of a girl's head, "Mourning," first won public notice, and at twenty, full of confidence in his power, he came to London in 1881, and lived and worked there, with visits away, till 1885. His art was thus individual in its development, though there is no doubt that his stay in Paris from 1887 to 1893 counted for much in his style; to this period belongs his brilliant portrait of Coquelin, as well as the first of his successful nudes, "Une Première" (1888); but from first to last his outlook on art and life was cosmopolitan, and finds expression in his reply to a Frenchman's question on an Atlantic liner—"Vous êtes Suédois?" . . . "Non, Je suis Zorn."

On the other hand, an essential feature in his art and life was the call of his own home-land. It came to him after his London and Paris life—after his world successes; it brought him to Dalecarlia, to Mora his own birthplace, equipped with all the science of art he had gained in the Paris studios, to paint those wonderful nudes, those Dalecarlian open-air scenes, those clean-limbed fair-haired daughters of the old Vikings, those complex problems of lighting in interiors. From 1906 onwards Zorn becomes more and more rooted to his home in Mora, where he lived like a king, though making frequent visits away (the present writer can recall happy hours spent with him in Venice ten years ago), and later each spring taking his cutter to the Skerries, outside Stockholm, where on the rocks and in the sunlight many of his bathing subjects were visualised.

Zorn was a consummate and universal artist; his individual show in the Venice International would alone have sufficed to show this; for there he exhibited oil paintings, such as that of the King of Sweden, water-colours of masterly technique, the etchings for which he was already world famous, and woodcarvings which showed him a master of that art—one of these, "Fontana," a girl's figure carved in wood, being acquired by Professor Tito. But like our own Etty, whose portraits are by no means to be neglected, Anders Zorn remained through the richest period of his creative life haunted, fascinated, by the attraction of the nude. Dr. Asplund says here that the artist himself "explained that sometimes he wished to paint some 'subject'—of course with a nude model—but when he saw how beautiful it was, when the model let the last garment fall, he banished all such thought, and simply painted the model."

As a landscape painter the writer is probably right in giving him a second place, in finding that the brilliant promise of a great landscape painter suggested in sketches and canvases about 1890 was not fulfilled. It is rare, indeed, to find the great figure and landscape artist united; and here perhaps "the artist's attention had been captured far too strongly by women of flesh and blood for him to listen to the dryads and the nymphs."

S. B.

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The Horse Guards' Parade Improvement.*

By F. W. Speaight.

We are, unfortunately, as a nation devoid of imagination. The history of the Marble Arch improvement scheme illustrates this truth in a marked degree. The Marble Arch, which originally stood in front of the courtyard of Buckingham Palace, was removed to its present position seventy years ago. Practically from that time until this improvement was effected in 1908 it was the obstacle that prevented any improvement being effected there to relieve the ever-increasing traffic at that point. Committees from time to time were appointed, consisting of men who had been trained to solve such questions as this, but, from their want of imagination, they appeared to have (without exception) all approached the problem with the pre-conceived idea that no alteration for the relief of traffic at that point could be made without the removal of the Arch itself; and even the last Traffic Commission recommended this. It was, therefore, chiefly on account of the cost involved in removing the Arch and the difficulty of finding a suitable site for its re-erection that nothing was done. No one appeared to have realised that it is frequently easier to walk round the base of a mountain to reach the other side than to climb up to its top and then make the descent.

In 1905 I saw that the problem of solving the traffic at this spot was to leave the Arch in its present position and to form a crescent road in the Park on its south side. Accordingly I prepared plans showing how this could be carried out at a small cost and submitted them to Lord Harcourt, who was then First Commissioner of His Majesty's Office of Works.

Lord Harcourt at once had the imagination to see the possibility of the proposal, and gave me his assurance that if I secured the support of the L.C.C. and the Councils of the City of Westminster and boroughs of Paddington and Marylebone, whose boundaries all meet there, he would, on his part, recommend to His Majesty the surrendering of the necessary land. Now, gentlemen, it took three years of constant work from that time to awaken the imagination of these public bodies to the possibility of this plan, and, during that time, negotiations had to be carried on with a Liberal and Conservative Government, a Moderate and Progressive County Council, and the Councils of the three local authorities as twice selected.

London is a great city, but a city of lost opportunities. The eye is frequently offended maybe by a street or "place" with no architectural principle in its axial setting out; by some building of an inappropriate design; or by the grouping of buildings without due regard for their relation one to another.

Again, how one grieves at the unsuitable position so frequently selected for public memorials; a favourite place is in the centre of a busy thoroughfare such as that chosen for the Duke of Cambridge's statue in Whitehall, where it is impossible to inspect this important work without the danger of being run down by a motor.

In Parliament Square a better arrangement exists not only in the improved surroundings given to the statuary but also in grouping together the memorials of those distinguished in one particular branch of public work.

Some years before the war an excellent proposal was made by the Navy League for the removal of the memorials of military men from Trafalgar Square and confining the statuary there to those of naval heroes. Either because the League did not "peg away" at their proposal or because of the difficulty of the disposal of the military statues when removed from the Square, nothing unfortunately has been done. I trust that the new Horse Guards' Parade will in future enable military memorials to be concentrated around it. Visitors to London and those who dwell in its midst will then be able to read military history with intelligence from its statuary. I may, perhaps, be permitted to here mention that when I first made this proposal in 1909 not a single military statue had been erected on this most suitable site, but since then I am glad that this suggestion has been followed and that the memorials to Viscount Wolseley and Earl Roberts have found a home there.

How the Horse Guards' Parade Improvement Scheme Originated.

I shall always remember the day following that on which the L.C.C. had adopted the Marble Arch improvement scheme. I was on my way to Whitehall, and paused a moment at the base of the Duke of York's Column to turn over in my mind the concluding sentence of a letter of congratulation I had just received from the Rt. Hon. John Burns, which ran as follows: "There is more of the same work to be done." On looking down the steps to the Horse Guards' Parade the idea of this improvement scheme came upon me with startling suddenness. I saw practically the whole scheme before my eyes. The wonderful vista from the steps on which I stood, one of the features of the improvement terminating with the impressive tower of the Foreign Office; the present shapeless and untidy Parade Ground, which for so many years has been such a disgrace, converted into a dignified "place"; a dominating memorial situated in an apse on its western side to form a dignified vista as the visitor approaches the Parade Ground from Whitehall; and the whole "place" providing suitable sites as they might from time to time be required for memorials to great generals of the British Army. I at once, with the assistance of the late Mr. Mallows, F.R.I.B.A., prepared plans showing the possibilities of the idea, and these were published in 1909 and at once received an unexpected amount of support. Certainly no plan had been published, and apparently no one had previously realised the possibility of the improvement that could be effected to the Parade Ground or of the disgrace it was to the capital in its present condition. I, at the same time, officially placed before His Majesty's Office of Works a copy of the plans, but in this case Lord Harcourt, who was still First Commissioner of Works, did not appear to have the imagination to see the advantages of the proposal.

Mr. Speaight's Red Herrings.

The original Horse Guards' Parade improvement scheme I am aware contained several suggestions which were impracticable if for no other reason than that they seriously interfered with the so-called rural amenities of St. James's Park, but by that time I was becoming sufficiently experienced with the ways of my critics both professional and otherwise. They were looking with grave suspicion upon the success I had already achieved in the Marble Arch improvement scheme, and I was fully aware that my next proposal would be severely criticised. I accordingly purposely introduced certain suggestions that I knew could not for one moment be approved of in order that my critics might be thus diverted by my "red herrings" and concentrate their opposition rather on them than on turning down the proposal in its entirety. Everyone took me seriously, and even "Punch" could not see the joke.

I flatter myself that I know the British public sufficiently well to realise how they love the winding and so-called rural walks of St. James's Park and its extremely artificial lake. Why the average Englishman persists in adoring a winding walk and thinking it is rural, is to me inconceivable, except for the fact that it reminds him of his own suburban garden.

Hopes Deferred.

With the turning down of the original proposal in 1909 by the then First Commissioner of Works I felt that nothing further could be done until there was a change in the holder of that office, and so I waited my time, feeling convinced that as the plans had been officially placed before and left with the Office of Works, they would, sooner or later, see the light of day.

Time went on, and then war broke out, and during those five years needless to say one's energies were devoted in other directions. However, with the signing of the Armistice and the consideration of suitable sites for war memorials, I felt sure that we should before long see the scheme brought forward—perhaps in some modified form—in connection with one of the proposals. It was, therefore, with considerable satisfaction that the public learned, on August 2, 1920, from Sir Alfred Mond, the then First Commissioner of Works, that an improvement of the Horse Guards' Parade was being considered in connection with the suggested memorial to the Brigade of Guards.

Shortly afterwards Lord Crawford and Balcarres succeeded Sir Alfred Mond as First Commissioner of Works, and I realised that with his well-known artistic taste such a scheme would receive his most sympathetic consideration, and he recently explained to a number of members of the House of Commons the plans. These have been most carefully thought out by his Department and reflect the greatest credit on the responsible parties, for, although they incorporate the whole of the principles of my original plan for the improvement of the Parade Ground, they wisely omit any interference with St. James's Park. Anyone studying

* An address delivered on the occasion of Parliament approving the plans for the Horse Guards' Parade improvement.

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the plan will see that the improvement as now proposed will actually add over half an acre of additional grass land to the Park, and that although certain trees, mostly root-bound, will have to be removed, provision has been made for twice the number to be planted.

PLAN DESCRIBED.

If you compare the original plan with the amended one by His Majesty's Office of Works that has just received the approval of Parliament, you will see that every essential feature of my original proposal has been adopted as far as it affects the Parade Ground, which, of course, was the only part of the scheme, as I explained to Lord Harcourt at the time, to which I attached importance.

(1) The formation of the existing irregular Parade Ground into a dignified "place" with well-defined lines laid out in architectural sympathy to the buildings that immediately adjoin.

(2) The formation of a semi-circular recess on its western side and the erection therein of a dominating monument in order that a proper vista may be formed for the visitor as he approaches the Parade Ground from Whitehall, in place of the toffee stall that at present occupies what perhaps is one of the most important sites in the whole of the British Empire.

(3) The forming of a road from the Mall to the Parade Ground that brings into the scheme a view of the Duke of York's Column.

(4) The provision in the area thus formed of sites for military memorials.

The new Parade Ground will be 600 ft. wide by 500 ft. deep, forming an area of some 300,000 square feet. For comparison sake I might perhaps mention the dimensions of the following: Trafalgar Square is 168,850 square feet; Parliament Square is 136,900 square feet; Piazza St. Marco, Venice, is 115,020 square feet; and Leicester Square, 100,000 square feet. The cost of the improvement is estimated to amount to £22,500, which sum has been provided for, as I originally suggested, by a grant made by Parliament to the Office of Works for unemployment work. The work, I understand, will immediately be put in hand and completed by the end of March next, and will thus afford much necessary work for the unemployed during the coming winter months.

This sum does not provide for the cost of the memorial to the Brigade of Guards that is being erected in the recess to which I have referred. This is being subscribed for privately, and, as its importance justifies, it is anticipated it will be one of the most important monuments in London.

Correspondence.

Alfred Bower Clayton, Architect.

To the Editor of THE ARCHITECT.

SIR,—I am preparing a monograph relating to Alfred Bower Clayton (1796-1855), artist and architect, of Doctors' Commons, London, and afterwards of Everton, near Liverpool, at which latter place he died. I shall be obliged by your kindly allowing me to state that, if any of your readers or correspondents, who happen to possess letters from, pictures, sketches, or designs by, or documents referring to, A. B. Clayton, will communicate with me by letter to the address below, and will lend me such letters or other papers as are likely to be serviceable, I shall feel greatly indebted.

Documents will be returned to the owners with as little delay as possible.—Yours, &c.,

E. G. CLAYTON
(late of "The Athenæum").

8 Northolme Road, Highbury Park, N. 5,
August 23, 1921.

Re Ex-Service Men.

To the Editor of THE ARCHITECT.

SIR,—*Re* "A Carver's" letter in the current issue of THE ARCHITECT. I should very much like to see such a scheme carried out. I cannot agree that it is quite such a simple matter as your correspondent suggests. I have been training as a banker mason at a Government instructional factory for nine months, and feel quite confident in my ability to do all that is required on the headstones.

There are now five of us ready to be employed as masons, but cannot find any employer who will take us so far. Trusting this publicity may lead to us being fixed up in a job.—Yours, &c.,

CHARLES F. WRIGHT.

47 Sirdar Road, Latimer Road, London, W. 11.
August 17, 1921.

White Lead Poisoning.

To the Editor of THE ARCHITECT.

SIR,—When I wrote you I was under the impression that my letter to the "Birmingham Post" had not been printed, which I posted on the 6th inst., but to my surprise I have just discovered that it appeared on the 8th, so I send you copy, and copies of two replies which have appeared since. Spraying paint on steel structures is done with the long arm (10 to 15 feet) and does not affect operatives. The term "tall stories" does not apply to fifteen pages of exhaustive details in a medical journal! Doctor Hayhurst worked for months in examination of 100 trade-union painters, and analyses the evidence: I have the journal before me, pages 788 to 803. It was carried out for the United States Department of Commerce and Labour based on (1) complete family, personal, and occupational history, (2) chief symptomatic and industrial complaints, (3) physical examination, and (4) certain significant tests, with the view of establishing the prevalence of plumbism or its after-effects among them. The 100 painters were from a Chicago painters' union, whose officials for years had given attention to morbidity and mortality statistics among their members. The dates of examination covered six weeks between February 22 and April 4, 1913. It was perfectly evident the men had lead in them. Almost everybody to whom I mention lead poison in Birmingham has a relative, neighbour, or acquaintance cognisant of cases of plumbism. I heard of three cases to-day: one an operative painter, another ground red lead in a Wolverhampton colour works and is gradually becoming blind, but fell ill before the Compensation Act was passed, so gets no redress.

What master painters bore witness to in the Home Office disagreed entirely with the operatives' testimony. There are 5,000 mental defectives in Birmingham district under the Board of Control; several hundred children whose fathers worked in lead trades; others were brass casters where fumes poison the workmen.—Yours, &c.,

CHARLES A. LINE.

39 Beaufort Road, Edgbaston, Birmingham,

The Diminution of Columns.

SIR,—Assistance from your readers would be greatly appreciated in advising if or where an instrument for describing the diminution of columns can be obtained.

I refer in particular to such an instrument ascribed to Nichomedes by Sir William Chambers in his Notes on "Architecture in General," and which was used with great success by Blondel.—Yours, &c.,

HENRY R. COLLINS, A.R.I.B.A., M.S.A.

Edgar House, The Walls, Chester,
August 20, 1921.

THE West Hartlepool War Memorial Committee has let tenders for the erection of sixteen cottage homes and reading-room in Rye Hill Gardens, which will form the first blocks of the War Memorial Homes to be erected by the committee.

THE cost of maintenance of cathedrals, which had received consideration at a recent Conference of Deans at Exeter, is the subject of an appeal by the Dean and Chapter of Exeter Cathedral, who, in an "Occasional Paper," state that during the past few months they have been compelled to look very closely into the financial affairs of the Cathedral. The appeal continues:—"The result is somewhat disturbing. Owing to the rise of prices our income is no longer sufficient to carry out the necessary work on the fabric of the Cathedral—*i.e.*, work which must be done year by year if the Cathedral is to remain standing. And, besides this, there is the constant difficulty in keeping up the Choristers' School. At the present time the school building is in urgent need of cleaning and repairing; but we have no money for that purpose, while the increased cost of food since the war began—as well as other things—has rendered the task of making both ends meet an impossible one. For the last two or three years we have appealed for help to those who care for the Cathedral; and we have not appealed in vain. On the contrary, we have received liberal help. But we feel that we cannot always go on begging for subscriptions year by year. We have therefore determined, after careful consideration, to make one great effort—*i.e.*, to ask for a capital sum, which may put us on our legs and free us from the necessity of constant appeals. Our readers may expect to hear more of this shortly."

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Royal Archæological Institute.—II.

Summer Meeting at Gloucester.

(*Continued from page* 102.)

THE excursions arranged for the third day of the joint meeting of the Royal Archæological Institute and the Bristol and Gloucestershire Archæological Society were all in the Forest of Dean district, which lies due west of Gloucester, the headquarters. On the previous day the chars-a-bancs had taken the party due north—to Deerhurst, Tewkesbury and Bredon. There was much beautiful scenery to compensate for the lengthy time spent in the cars. An old couplet says: "Bless'd is the eye Between the Severn and the Wye." The first stop, after a twelve-mile run, was at

FLAXLEY ABBEY.

For the purpose of developing the contemplative side of the religious life the Cistercian rule enjoined the choice of lonely valleys or other sequestered spots as sites. Hence arose the saying "*Bernardus valles amabat.*" This powerful offshoot of the great Benedictine Order owed its original character in a considerable measure to Stephen Harding, an Englishman and a professed monk of Sherbourne. The Cistercians quickly spread over Europe, and became noted for skill in agriculture, architecture and commerce. Introduced into England about 1120, there were in this country at the end of the century no less than 120 houses, including Waverley, Furness, Tintern, Rievaulx, and Fountains. By a rule of the Order every foundation was placed under the patronage of the Blessed Virgin, and no other monastery was to be built within a certain distance. Among the strict observances Stephen Harding introduced was one applying the counsel of perfection of poverty to the chapels and all their ornaments, as well as to the monasteries and the monks themselves. The cloth industry of England owes not a little of its rise to the Cistercians, whose farms were the agricultural schools. There were only three Cistercian abbeys in Gloucestershire, *viz.*, at Flaxley, Hayles and Kingswood, and of none of them is there now much left. Flaxley must have been considered an ideal setting. Of the abbey church only some 60 feet of the south wall remains; it is incorporated into the present orangery, which itself marks the north walk of the cloister. About the same length of walling marks the site of the hall or refectory. The most notable fragment is the "Abbot's Room" (on the first floor and over the "Necessarium"), which contains many interesting features, including a fine beamed ceiling and a large fireplace. The present kitchens also include a good deal of mediæval work. Flaxley Abbey was founded about 1150 by Roger, Earl of Hereford, in memory of his father, Milo, who was killed on the spot where it now stands while out hunting on Christmas Eve, 1143, Milo being at the time under ban of excommunication. One of the activities of the monks is seen in the right accorded to the Abbots of Flaxley to cut two oaks weekly for their forge. But this proved to be so destructive to the forest that it was commuted for a grant in lieu of 872 acres of woodland, which became hereafter known as Abbots' Wood. At the Dissolution Henry VIII. granted the abbey to Sir William Kingston, a personal friend of his. A century later his descendant sold the property to William Boevey, a wealthy Dutch merchant, and his half-brother James. The abbey has remained in the possession of the Boevey family since 1647, and it was Sir Francis H. Crawley-Boevey, Bart., himself a keen antiquarian, who acted as guide.

ROMAN ROAD, BLACKPOOL BRIDGE.

After a very fine drive of nine miles a halt was made to inspect a short stretch of what is believed to have been a minor Roman road, linking up Yorkley and Soudley, which would have been of great use for the transport of iron ore from the Forest of Dean to the Severn ports. The Romans, as explained by Mr. St. Clair Baddeley, always immediately earmarked the mineral areas for their own use. The average width of this now disused roadway is 7 feet 10½ inches. It consists of cubes of conglomerate or of millstone grit 8 or 10 inches square, with kerbstones 5 inches wide and from 10 to 20 inches long.

THE SPEECH HOUSE.

Tourists who wish to explore thoroughly the Forest of Dean are usually advised to make the Speech House Hotel their centre. It stands in splendid isolation, crowning a hill 572 feet above sea level. The name is derived from the fact that here was held the ancient court of "The Speech," as mentioned in the "Laws and Franchises of the Mine." The Court of the Verderers of the Forest, which goes back to 1016, continues to sit here. The present grey sandstone building was erected between 1668 and 1680. The forest contains about 22,000 acres, and is locally governed by two Crown-appointed deputy gravellers to superintend the woods and mines, and four verderers elected by the freeholders. From time immemorial all persons born in the Hundred of St. Briavel's, and over the age of twenty-one, who have worked a year and a day in a coalmine, become "free miners," and may work coal in any part of the Forest not previously occupied. The same privilege extends to quarrymen.

At the conclusion of luncheon at the hotel a paper was read by Lieutenant-Colonel Russell J. Kerr on "Customs of the Forest of Dean," with particular reference to the legal enactments passed from the time of the Conqueror to the Dean Forest Mines Act 1904. The party then resumed its journey to

ST. BRIAVEL'S CASTLE.

This castle was built in 1131 by Milo of Gloucester, on the summit of a hill rising to a height of 800 feet above the Wye Valley. Its original purpose was as an outpost against the Welsh. But from its proximity to the Forest of Dean it soon served as an excellent royal hunting centre; Henry II., King John and Henry III. all stopped here, and it became the residence of the chief officers of the Forest. The two entrance towers of the present building form part of the additions made in 1275. The castle has long since lost its military character. The property belongs to the Crown; and in 1906 it was rendered habitable for its present tenant, the Hon. Mrs. Campbell. As far back as 1692 the Commissioners to the Crown reported: "The Castle of St. Briavel's hath been a very great and ancient building, but the greatest part is ruined and fallen down, and only some part kept up for a place to hold the courts in for the King's Manor and Hundred thereof, and also for a prison for debtors attached by process out of the said courts, and for offenders and trespassers within the Forest." The court-room was, before Elizabeth's day, the chapel, and it has recently reverted to its original pious purpose.

THE SCOWLES.

The derivation of the word "scowles" is uncertain. The term is used in the Forest of Dean to designate the immense clefts or crevices to be seen in several parts of it, whence the outcrop of iron ore has been quarried in past times, much by the Romans and much at a far more recent date. The finest example, known as "The Devil's Chapel," at Bream, was visited by the party, who were shown some of the ancient mining tools, and were told by Mr. F. S. Hockaday, F.R.Hist.S., the remarkable fact that during the late war the cinders from these derelict workings were sent away to blast furnaces for the purpose of munition-making. Gloucestershire was, until about the middle of the fourteenth century, the chief seat of the English iron trade. In the days of the Confessor the county annually rendered to the King iron for horseshoes and one hundred rods of iron for making nails for his ships. It provided Richard I. for the

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Crusades with 30,000 horse shoes and £100 for iron for the royal ships. Iron mining continued in the Forest during the seventeenth and eighteenth centuries, but gradually declined in the nineteenth, until it is now almost non-existent.

The twenty-two-mile return journey to Gloucester was broken at Newnham for the purpose of taking tea at the pleasant old "Victoria" Hotel.

In the evening a lecture was given at the Guildhall, Gloucester, by Mr. A. Hamilton Thompson, F.S.A., on "St. Oswald and the Archbishops of York." St. Oswald, the hero King of Northumbria, was buried in the Priory, named after him, which stood close to the Abbey of St. Peter, Gloucester, and a considerable area formed part of the diocese of York. These led to constant disputes between the sees of York and Worcester.

Fourth Day.

There were only two archæological items on the programme. The first was the

Roman Villa, Chedworth.

Fifteen miles to the south-west of Gloucester, and right away from the main road, lies what is considered to be the least obliterated and the most interesting example of the villa-rustica in Roman Britain. It is certainly looked after in most commendable fashion nowadays. Like some other archæological treasures, it was "discovered" by the purest chance. In 1866 a ferret ran to earth on the Earl of Eldon's estate, and the gamekeeper, in digging for it, pulled out a quantity of tesseræ. Careful search being then made, the present wonderful results were ultimately obtained. We cannot do better than quote from the description given by Mr. W. St. Clair Baddeley, who acted as guide: "Though more than half of the long southern wing has vanished, there remains the main inner court surrounded on two sides by a very complete set of baths and important *triclinia*, and other dwelling apartments of the owner's family. Clearly separated from these, though chiefly by means of a spacious corridor set upon a higher level, extends the almost entire northern wing. It consisted of about eighteen chambers (many of them built over *pilæ* and *suspersuræ*) and an apsidal nympheum, or reservoir (still supplied from the steep slope at the west), and furnaces belonging to the wing only; near to these last, therefore at the western angle of the villa, were found the long pillows (not pigs) of iron, now in the museum. In the nympheum was found a small stone pagan altar, also to be seen there. Eight or nine rooms further east along this wing were found the large mill-stones. Some of these varied chambers have apsidal ends, though most are square-headed. To the rear of the wing, only a few yards away, lie the foundations of a kiln. As against the view held that such villas in Britain were the equivalent to the 'Dukeries,' it might be contended that they were sometimes, as here, the homes of plutocrats of another kind rather than people of lineage. The White Way, or Roman Road, which leaves Cirencester in its north-west angle, was by no means a highway constructed specially for this villa, as has been often asserted, but was evidently a market-way subserving at least one extensive group of estates." Mr. Baddeley believes that a considerable portion of this villa was used as a manufactory of some sort—probably a fullery where cloth was made from the locally grown wool. This would account for the existence of those great and weighty presses.

The whistle all too soon gave the signal for a return to the cars and the eight-mile run through the Coln Valley to Bibury.

Bibury.

The domestic architecture of the Cotswold district is second to none in interest and character. Its chief charms are its great simplicity and splendid proportion. William of Malmesbury wrote of the county: "The villages are very thick, the churches handsome, and the towns populous and modern." This particular portion of it gives every sign of great prosperity in the Middle Ages; 800 years ago it was exporting wool to Flanders. The whole of the Cotswold district being a stone one, practically every building, big or little, was constructed in the local limestone, which weathers to beautiful greys and yellows. Nearly every village had its local quarry. The local traditions were undisturbed here. Everywhere one sees a marked uniformity in design as well as in material. As Mr. E. Guy Dawber in his book says: "Occasionally the individuality of the craftsman shows itself in the way of quaint finials or some delicate-wrought ironwork to the doors or windows; small touches that give a charm and vitality to his work. . . . More than anything else, the sense of proportion in these houses is the one thing that produces so much of their charm. It is always correct, there is never a false note; for these old builders seem to have understood intuitively the exact relation of voids and solids, of heights and widths, and in a quiet and unpretentious way their houses are almost perfect as specimens of village craftsmanship." Every village in the Cotswolds seems a thing of delight. But who will challenge the supremacy of Bibury? William Morris, who knew England well and this district intimately, for Kelmscott lies not many miles away, declared that Bibury was "surely the most beautiful village in England." Probably every Gloucester man will agree with that sentiment. Those from other counties may make a reservation or two as to the spot which in their hearts is beloved over all. Should there be any unattached souls without preferences they can be earnestly advised to stay at Bibury. But on no account must the place be made "popular," for its unsophisticated atmosphere is one of its greatest charms: it is as natural as the shallow, gurgling Coln which passes through it.

Unfortunately an inexorable time-table presumed that the main importance of Bibury was its ability to provide an excellent luncheon for a large party. So there was opportunity for nothing more than a scamper through the village and a hasty inspection of a very interesting and puzzling parish church.

Burford.

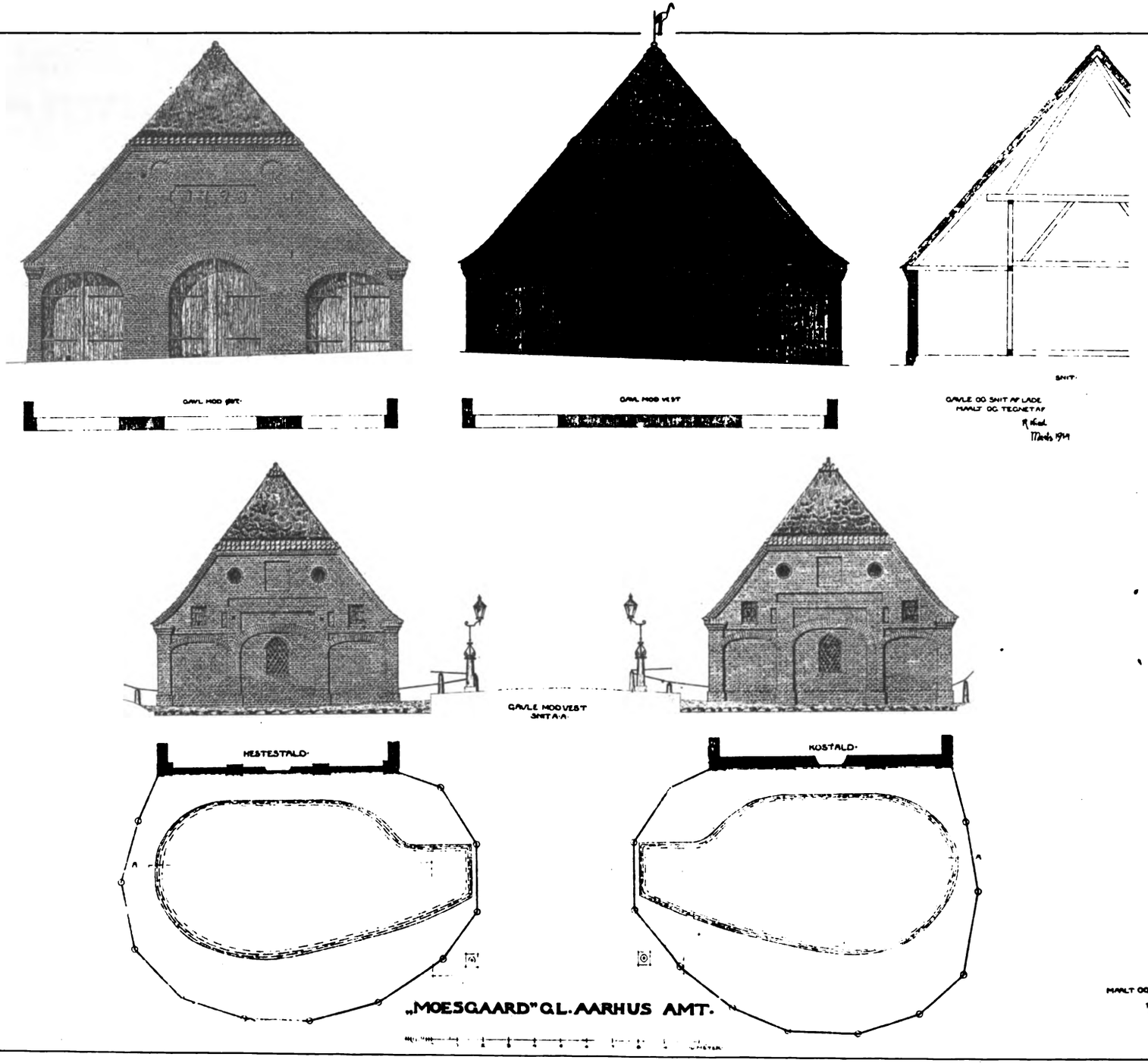
Another journey, eight miles, brought the party to Burford and Oxfordshire. This miniature market town is so widely known as to need but a short description here. The splendid parish church has been aptly described as an epitome of the whole civic life and art of the later Middle Ages. Yet it was the alterations going on there some fifty years ago that may be said to have originated the Society for the Preservation of Ancient Buildings. William Morris, who had stopped to bait at a local inn, saw the work, and shortly after he drafted a letter urging the formation of a society which might deal with such cases. Fortunately the mischief was stopped, and, as Mr. Hamilton Thompson said, no church perhaps has been so well treated as this has been in recent years.

The church is a monument to successive generations of enterprising and prosperous townsfolk through some four centuries. A simple twelfth-century cruciform building without aisles has become an opulent, complicated, and romantic affair, full of architectural jewellery in stone, metal, and wood. Only the Norman central tower and the west wall of the nave remain to show its humble beginnings about 1170. As it now stands it is one of the finest and most interesting examples of a parish church in the whole of England. One of the many rural monuments is that to Christopher Kempster, clerk of works to Wren during the building of St. Paul's. Kempster was a native of Burford, and came back here to end his days.

Fifteen years ago Burford Priory, where the party were invited to take tea with Mr. and Mrs. E. J. Horniman, was a picturesque ruin. When the Royal Archæological Institute came here in 1910 the workmen were busy repairing it. The result of their work is a very delightful country house in a beautiful setting. There is one part of it which has been left untouched.

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OLD DANISH FARM BUILDINGS.

From a Drawing by REGNAR WIED, Architect

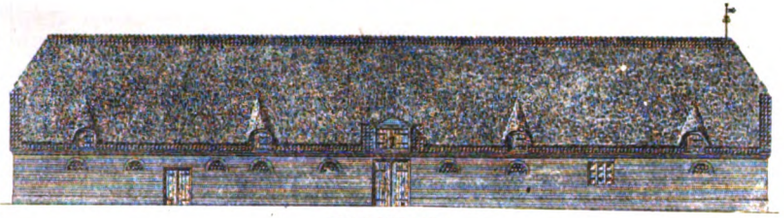
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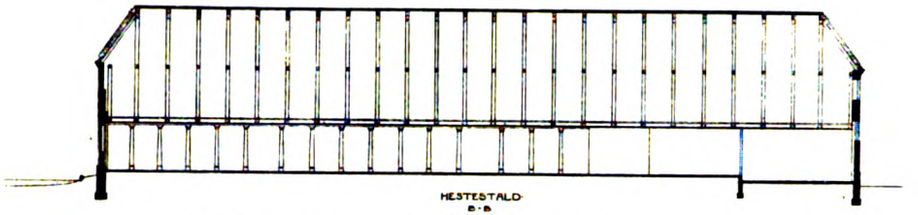
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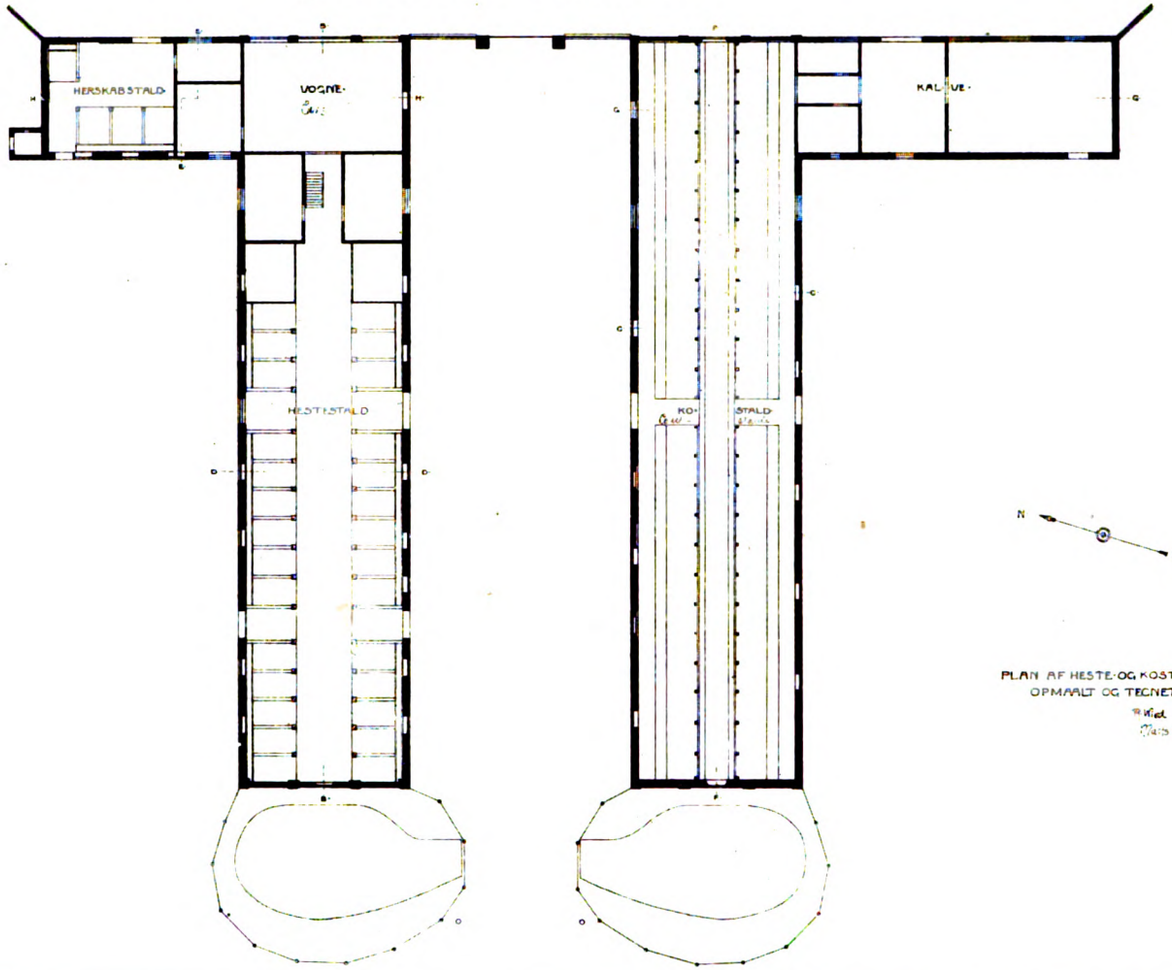
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OLD DANISH FARM BUILDINGS.

FROM A DRAWING BY REGNAR WIED, ARCHITECT.

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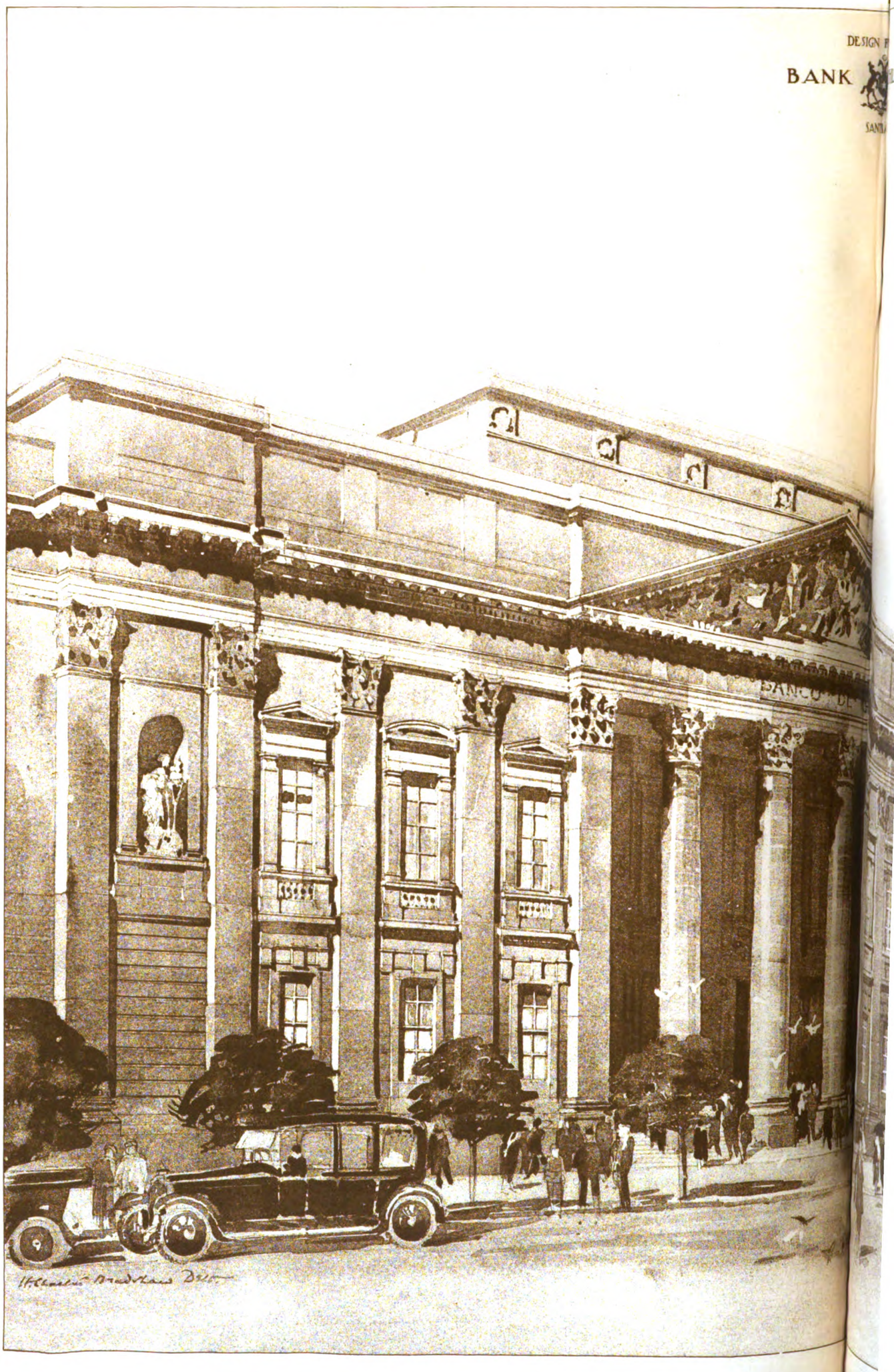
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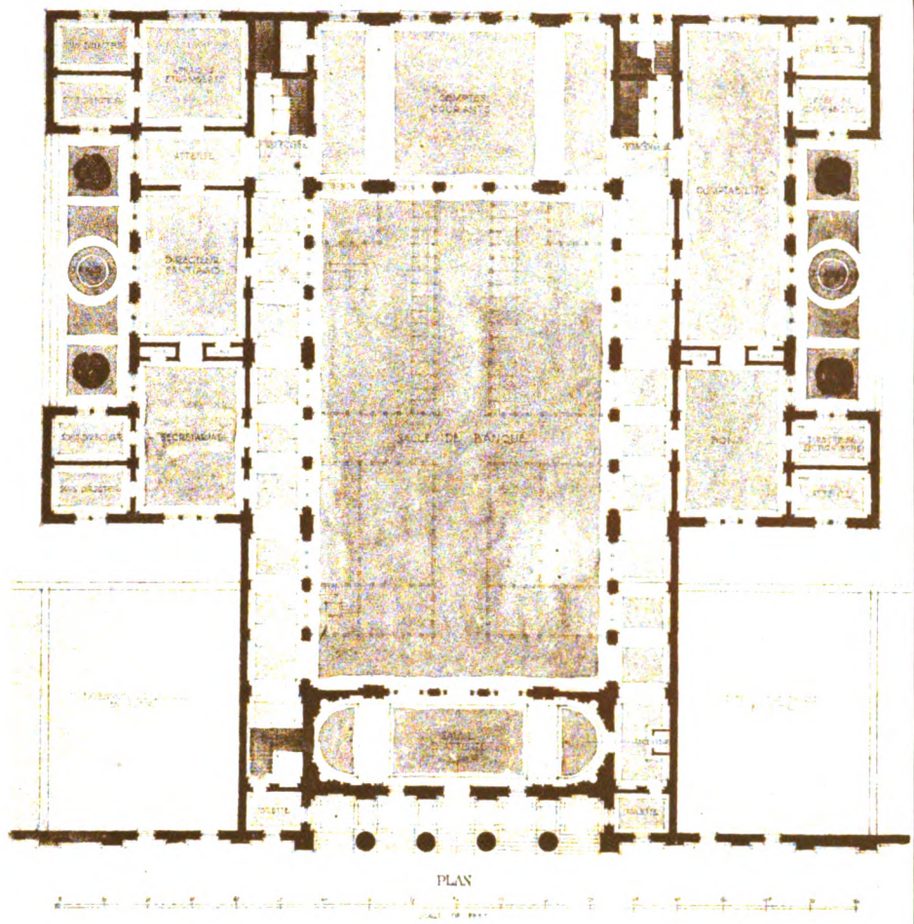


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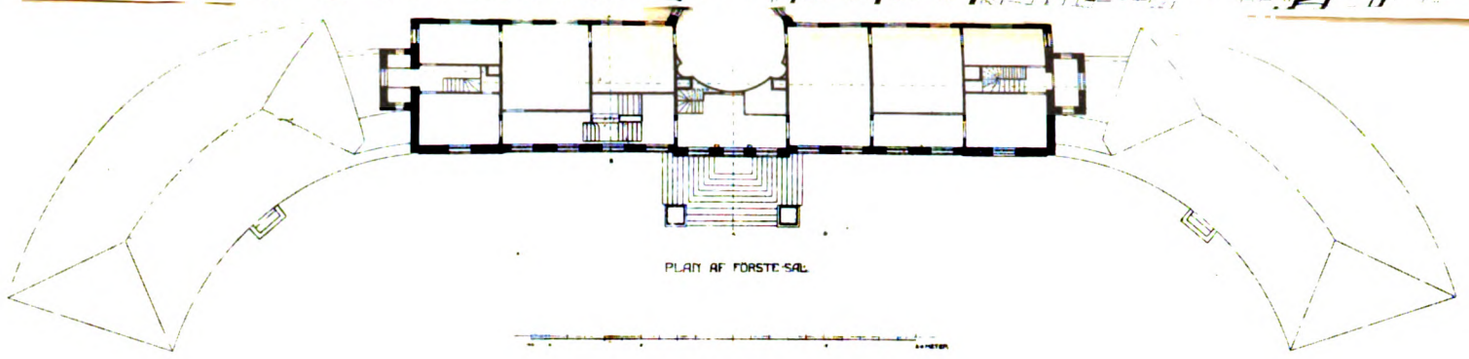
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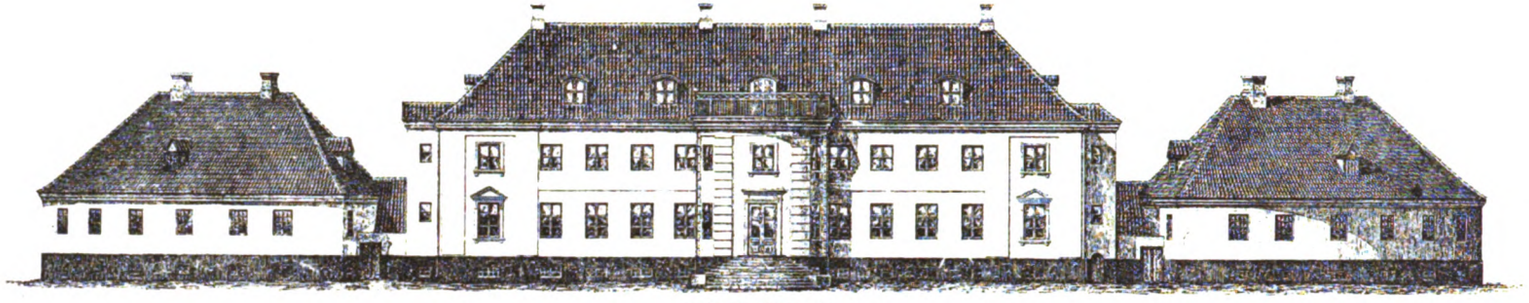
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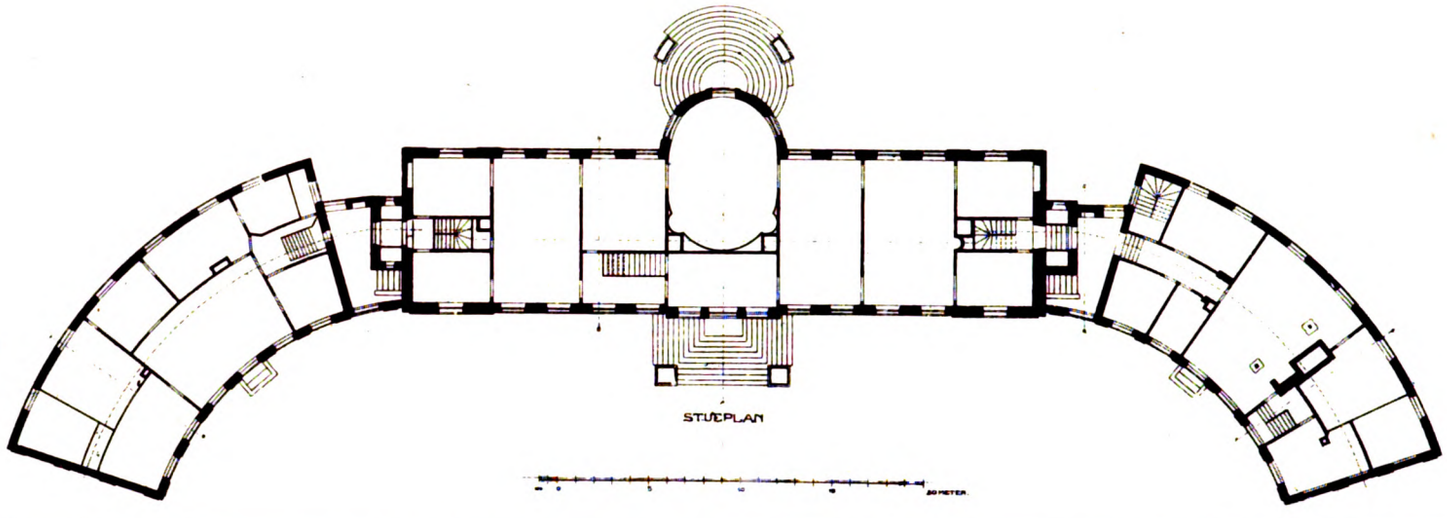
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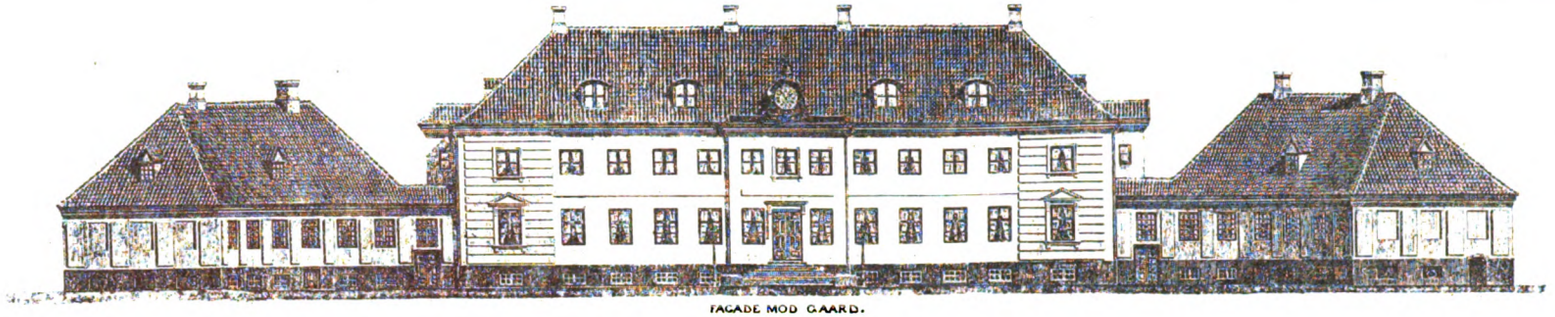
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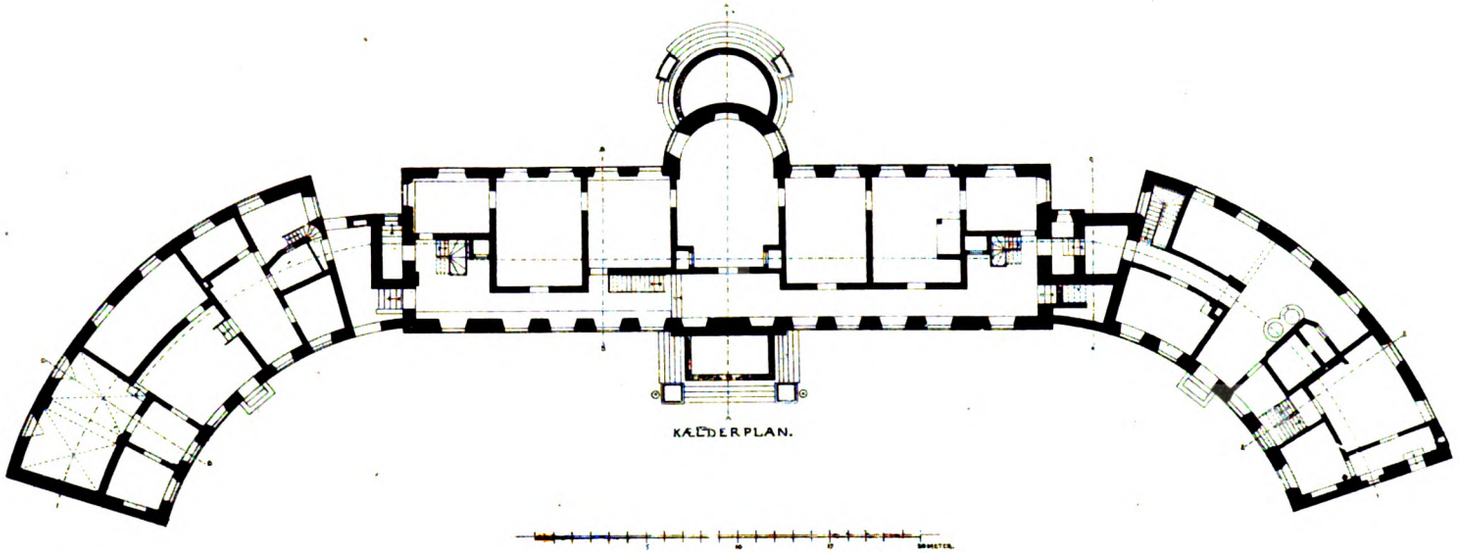
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THE MANOR HOUSE, MOESGAARD, DENMARK.

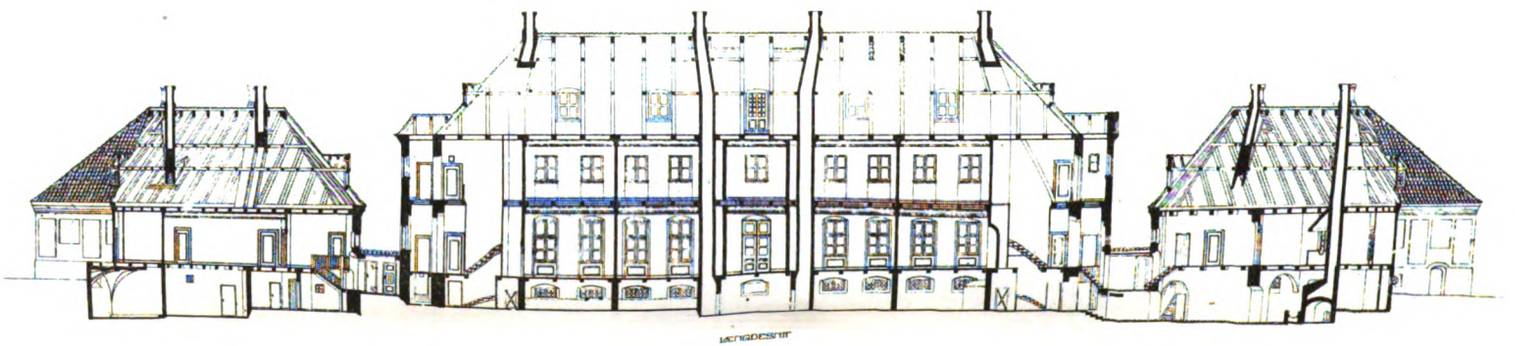
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This is the detached chapel built by Speaker Lenthall in 1660, and described by the bishop who consecrated it as "a most elegant piece." Mr. Gotch, in his "The English Home from Charles I. to George IV.," says: "Perhaps the most remarkable attempt to weld Jacobean and classic design into one consistent whole is to be found in the charming chapel attached to Burford Priory. There is much more here than a mixture of separate features, some in one style and some in the other. The general treatment is reminiscent of Jacobean. There is a lofty storey crowned with a cornice and an attic above it. . . . The traceried windows have a novel disposition of curves, and the rose window is not a mere travesty of ancient methods, but has a vigorous individuality of its own, and is set in a classic framework. The whole work is consistent throughout, and the detail is refined and cleverly handled. It is the successful attempt of a clever designer to solve old problems in new ways, and it is a pity that neither his name nor any other work from his hand is known." Mr. Gotch, in another of his books, describes the Rectory House at Burford. The entire township is full of good things.

As there was no evening lecture, the Gloucester Museum was kept open for the benefit of the members.

Fifth Day.

An eighteen-mile run, during which the party found it easy to be philosophic when caught in the rain, brought us to

Avening Church.

A considerable portion of the Norman structure here still survives, though many alterations were effected during the three following centuries. In the thirteenth transepts were added, the chancel lengthened by one bay, and a chapel tacked on to its north side. Among the many curious features are two sculptured fragments of a Norman font which have been built into the north wall of the nave—the larger forming part of the internal jamb of the door.

Chavenage House.

Mr. Hamilton Thompson, in describing this place, spoke of it "as one of the most beautiful and romantic houses to be found in this county of romantic houses." It has an irregularity somewhat uncommon in the Cotswolds. Though almost certainly no older than 1576, there is a strong Gothic flavour about it, due to the fact that in this district Gothic lasted long after it had been superseded in most other places. Local stone, built in small unsquared courses, was used, and the roofs are covered with stone slates. The plan is a typical one of its period. The central feature is a great hall the full height of the house, with a block at one end for the master and his family, and at the other, divided from the hall by screens and galleries, is the kitchen wing. The house, together with the one next visited, is included in Garner and Stratton's "Domestic Architecture of England during the Tudor Period."

Tetbury, where a halt was made for luncheon, is a market town of some fair size. The picturesque town hall, in the market place, is of Elizabethan date, and stands on dumpy stone pillars. A little way out of the town is

Doughton Manor.

If it is true that the best Cotswolds work is between 1580 and 1650, then this unspoilt stone manor-house may be said to exemplify the golden period. Garner and Stratton believe it was begun shortly after 1591, when the property was purchased by John and Edward Seed. The house, which stands close to the high road, owes nothing to its setting. For the past hundred years it has been occupied as a farm, and is so to-day—with tenants, moreover, who appear to have no leisure for gardening or love for making the very best of a good thing. So it stands on its own intrinsic merits. There can be no two opinions as to the verdict.

Uley Bury.

A run from Tetbury of about twelve miles in a westerly direction brought the cars with startling abruptness to the edge of the Cotswolds and to the Severn Valley, some hundreds of feet below, shut in on the far side by the Forest of Dean. The first objective was the Uley Tumulus, locally known as Hetty Peglar's Tump, which lies some 300 yards off the main road. It was discovered in 1820 by workmen digging for stone. The tumulus is about 120 feet long, 85 feet at its greatest width, and 10 feet high. Search revealed a series of chambers and galleries lined with big masonry slabs. Various human skeletons were found, together with other bones. Evidently this early British tumulus had been rifled by mediæval treasure-hunters, for a groat of Edward IV. was picked up.

A quarter of a mile away is the great quadrangular entrenchment of Uley Bury, occupying the whole of the top of a lofty hill 823 feet above sea level. On the Ordnance map it is marked as a Roman camp. Mr. St. Clair Baddeley had not the smallest hesitation in ascribing it to an older date, though made by a people of mighty accomplishment and conscious architectural ideals. The area comprised is nearly 32 acres, and it could accommodate between four and five thousand people. One of the problems is the fact that no water supply has been discovered. Perhaps it was not a place of military defence at all. Sir Henry Howorth preferred to regard these hill camps as pounds where animals were driven for safety against the attacks of beasts. Another suggestion was a burial-ground.

Many centuries of time and four miles of space separate Uley Bury from

Owlpen Manor-House.

This fascinating homely house served as a worthy climax to four days of journeyings in the county of Gloucester. And yet a century ago the owner left it in preference for a brand-new residence higher up on the table-land of the Cotswolds. It is significant that this owner was an Irishman, Thomas Anthony Stoughton, who became possessed of the property through marriage with the daughter and sole heiress of Thomas Daunt, of Owlpen. It had been the home of the Daunts for some hundreds of years. Early in the sixteenth century John Daunt married Margaret, sole heiress of Robert Owlpen—and the family of de Olepennes came here and took their name from the place soon after the Norman Conquest. Fortunately the present Mrs. Trent Stoughton is keenly alive to its beauty, and the house and gardens are well looked after. The old fittings, such as the door furniture, have not been cleared away. In the kitchen is the huge open fireplace, with a potcrane from which the cooking-vessels were suspended; the spit rack above still retains its gleaming steel spits, instead of, as usual, being converted into a gun-rack; the clockwork spit-driving gear, and a rarely-seen charcoal stove are still there, as well as the bacon rack, which is divided into four compartments with ribs at different agles. Some of the living-rooms have curious wood panelling crudely painted to imitate graining. Another room is hung with canvas painted in a pseudo-Chinese fashion to suggest a tapestry picture of the life of Joseph.

Sixth Day.

The final morning, like the first afternoon, was devoted to Gloucester Cathedral. Members assembled in the choir, where Mr. G. McNeil Rushforth, F.S.A., described in detail first the east window and the original pavement tiles in the Presbytery, and then the east window of the Lady Chapel. Later a party toured the precincts under the guidance of Mr. F. W. Waller, architect to the Dean and Chapter.

The Scarborough Town Council has decided, in view of the shortage of houses and other facts, including the cost, and the Government's present position in connection with the housing question, not to proceed with the reconstruction of a large area in the East Ward at Scarborough.

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Report of the South Wales Regional Survey Committee.

THE South Wales Regional Survey Committee was appointed by the Minister of Health in February 1920 to inquire into and report upon the special circumstances affecting the distribution and location of the houses to be erected with State-aid in the region of the coalfields of South Wales, and to make recommendations thereon.

Oral evidence was heard from eighty-four witnesses, including representatives of the chief industrial concerns, trade unions, organisations, and local authorities, and numbers of written statements were obtained from various sources. The Committee were unanimous in their conclusions. An abridgment of the full report has now been issued by the Stationery Office and is sold at 3*s.* 6*d.* net.

Housing in the Valleys.—The mining industry, in which probably one-third of the male population of South Wales is employed, is concentrated in valleys, which are in themselves unfitted for housing purposes, owing to the scarcity of suitable housing sites. Several factors tend to high prices for the land, to high cost of building and development, to the crowding of houses together, and to the impossibility of obtaining land for recreation purposes. These are mainly the narrowness of the valleys, the steepness of the hill sides, the extent of land taken up for colliery works, railways, canals, and roads, and the liability to subsidence.

There is, moreover, the unfortunate fact that wherever aggregations of houses are situated in the valleys, they are necessarily in close proximity to collieries and colliery works, with all the serious disadvantages of the coal-dust and smoke nuisance, and the serious pollution of the rivers. On the other hand, the hill-top areas are also unsuitable for housing purposes owing to difficulty of access, bleakness of situation, poverty of soil, liability to subsidence, and absence of water supplies.

The Committee are of opinion that depressing surroundings and sameness of occupation have a marked effect in causing discontent and unrest.

Grouped Housing Areas.—In view of these considerations, the Committee recommend the housing of miners outside the valleys and off the coal measures, and suggest fifteen localities as centres for grouped housing schemes to serve particular valleys or groups of valleys. Practically all the centres suggested are in the vicinity of railway junctions and are served by more than one line of railway, thus facilitating the improvement of workmen's train services. In most cases also, the water supply, sewerage, and other services are already available or can be provided without much difficulty. It is, therefore, claimed that the cost of development on these lines would be very much less than where building activities are distributed over a large number of sites, and that new townships could thus be planned and built on the best possible lines with adequate provision for social institutions and necessary transport and other services.

Dormitory Towns.—Each of these settlements should partake of the nature of a dormitory town, it should be built away from the industrial centres, it should be almost purely residential in character, the residents should belong to different industries, and the size of the town should be definitely limited by a permanent agricultural belt within its own boundaries. The Committee recommend, however, specially the establishment, as an object-lesson, of two complete dormitory towns, one near Llantrisant Station for a population of about 30,000 and the other by the replanning or remodelling of Bridgend and its expansion into a dormitory town about four times its present size. This can only be done satisfactorily by the Government (though with the association of the residents in the management of the scheme from its earliest stages), and the Committee urge that at any rate the Llantrisant scheme be immediately taken in hand.

The Committee also recommend the development of Porthcawl as the principal "health" town for the Region and make many suggestions as to the improvement of local amenities.

Joint Town-planning Committees.—Apart from the creation by the Government of these two dormitory towns, it is suggested that it would be desirable to form four Joint Town-planning Committee, on which all the local authorities in the Region would be represented. The duties of each of these Committees would consist in the preparation of an outline plan for its area, such plan to be incorporated subsequently in the town-planning schemes of each of the local authorities. In addition, the Committee recommend the establishment of a Regional Town-planning Board, to supervise the work of the various Joint Town-planning Committees and to prepare a regional development plan.

Local Government Complications.—The Committee recommend that action be taken by the Ministry of Health to bring about a systematic redistribution of local authority areas in South Wales, and that a Boundary Commission be appointed at the earliest possible date, to make recommendations both for the readjustment of boundaries and for the setting up of a Regional Council, somewhat on the lines of the London County Council. This body would not only swallow the Regional Town-planning Board, already mentioned, but would remove financial difficulties which at present stand in the way of comprehensive schemes, and would administer over the whole Region not only town-planning, but also such matters as housing, education, traffic control, poor relief, hospitals, main drainage, bulk water supply, construction and improvement of main roads and bridges, and police. The rearranged local authorities would have certain functions in connection with those services delegated to them, and in addition would attend to such matters as the construction and maintenance of local roads, street cleaning and lighting, removal and disposal of house refuse, local drainage, baths and washhouses, libraries, Food and Drugs Acts, sanitary inspection, local recreation grounds, markets, &c.

"The Architect" Fifty Years Ago.

AUGUST 26, 1871.

LONDON, we believe, is held by our old and estimable acquaintance the intelligent foreigner to be rather distinguished for the number of its public statues. In some other great cities the efforts of the sculptor are greatly directed to the commemoration of the celebrity of personages so long departed, if not forgotten, as to have ceased to be regarded in connection with the world of the present; or to the glorification of mere abstractions—cities, rivers, nationalities, virtues, passions, emotions, genii, angels, and myths in general. But in London the occupation of monumental sculpture appears to consist almost exclusively in the representation of recently deceased public men in *propriâ personâ*, as an honour to themselves, and an encouragement to their friends. Moreover, as we have to pay very handsomely for such articles in England, we do not adopt the very common Continental plan of placing them in niches, and under canopies, and otherwise as accessories to our public buildings. We prefer to make a little more show for our money; and our statues are therefore set up on stately pedestals in market-places and squares, and at street corners, and in various Walhallas, somewhat ambitiously. Accordingly, we possess in London a good many of these monuments; and our country cousins and foreign visitors are in the habit of "doing" them as matter of pilgrimage, admiring them very much as a rule, and venturing only to criticise them as matter of personal preference, and with due respect—provided, that is to say, they are not in the secret.

The secret to which we refer is that it is the right thing to "do" these statues under an affectation of being dreadfully bored; and indeed to view them—every one of them—with complete and undiscriminating contempt. Let us repeat a few standard observations that are consequently in everybody's mouth: We certainly cannot be said to excel in our statues:—It seems as impossible for an Englishman to accomplish a statue as for a Scotchman to appreciate a joke:—It is a pity the sweepers of street rubbish from their bases cannot be got to sweep away some of the statues themselves with the rubbish:—Our unpretending thoroughfares, to say nothing of our Cathedral and Abbey, are encumbered with the vilest caricatures of the human form:—From the empty horse in Leicester Square to the lame one in Cockspur Street, and from Brandy Nan and Mr. Peabody in the City to poor Franklin and Herbert in Pall Mall, it is hard to say which is the most devoid of art:—such are the flowers of rhetoric that are the very height of fashion, whether flung playfully across the dinner-table, declaimed in Parliament, or elaborated in the Press; and if anyone should be disposed to question the accuracy of the principle, he must be prepared to find himself looked upon as a too amiable, and quite uncultured, if not eccentric savage.

A COMMITTEE has been formed, with the approval of the Bishop and the Dean and Chapter, to place in the Cathedral of Winchester a canopied statue of Joan of Arc. The statue is designed by Mr. J. N. Comper, and will stand over against the chantry of Cardinal Beaufort, Bishop of Winchester, who was present at the trial of Joan of Arc. A sum of £550 is being sought.

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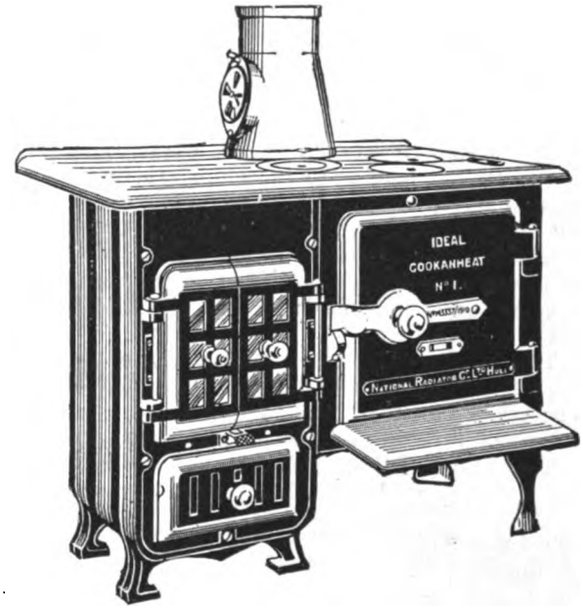
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New Books.

"The Lay-out of Small Water Mains." By H. H. Hellins, M.Inst.C.E. Sir Isaac Pitman and Sons, Ltd. 7s. 6d. net.

THE introduction to this book quite frankly states its scope and intention. It touches a most important and often neglected phase of the question of water supply; inasmuch as it deals with the supply of water to relatively small communities or areas. It will be especially valuable to young engineers and engineering students, who require for their guidance and instruction some such work to enable them to study the question of water supply under a great variety of circumstances; especially will it be valuable to anyone who has to design a water supply wherein, owing to considerations of economy (which in these days is of paramount importance) it is imperative that the very best results shall be forthcoming for the expenditure incurred.

The book is well and concisely written and the various tables have obviously been prepared with great care. Much more could be said in favour of this method of approaching the study and elucidation of an important subject, but it may be sufficient to say that the author is to be congratulated on his ability to condense a great deal of valuable and dependable information with commendable economy of space, illustration, and written description; and further contributions of a like character from the same source would be welcomed by those who are intimately concerned in the important question of the effective and economical provision of water supplies.

"Oil Firing for Kitchen Ranges and Steam Boilers." By E. C. Bowden-Smith, M.I.MechE. (Constable.)

THIS well-written and very practical book possesses a special interest at the present time, when owing to the coal situation it becomes imperatively necessary to study alternative methods of heat production.

The work is fully descriptive of the most recent methods of heat generation by liquid fuel, and describes in detail the adaptations and adjustments necessary to be made to existing installations to enable fuel oil to be used in lieu of solid fuel.

"A Text Book on Surveying and Levelling." By H. Threlfall, M.Sc.Tech., &c. (Charles Griffin and Company, Limited.)

THIS is a most valuable and comprehensive work, and is essentially what it sets out to be: a text book, valuable alike to the student as to the more experienced practitioner, since the range of information presented is so varied and extensive and withal set forth in the lucid and straightforward manner one would naturally expect from one who is not only highly skilled in the work, but who possesses, in an eminent degree, the faculty of imparting knowledge to others.

This work is attractive not only from the point of view of its lucidity, but from the fact that it provides as complete a range of information respecting the subjects with which it deals as would be difficult to excel.

The writer of these notes devoutly wishes that this book had been available to him in his student days.

"Shades and Shadows." By David C. Lange, M.S. London: Chapman & Hall, Ltd. 15s. net.

MR. LANGE, who is instructor in architecture in the Washington State College, states that the information in his book on Shades and Shadows was compiled so as to serve as a text-book for architectural students who, in many colleges, receive their early training under engineering teachers. This system, we think—and hope—is not very prevalent on this side of the Pond nowadays. Students in our better-known architectural schools will hardly require a text-book of this nature, but those attending technical classes in many other schools will find it very useful. The book is divided into two sections, the first of which deals with elementary principles of descriptive geometry, the second with principles of shades and shadows. Both subjects are well and clearly stated—an important point in a book of this nature. Also, the architectural illustrations are good examples, which it is customary not to meet: a final chapter on wash rendering should prove helpful to the beginner.

General.

THE late Mr. R. P. Nutley, F.R.I.B.A., F.S.I., of Upper Clapton Road, S.E, left estate of the gross value of £6,692.

GORING and Streatley Bridge is to be rebuilt by the Oxfordshire and Berkshire County Councils at a cost of £31,000.

PLANS have been approved for the erection of a cinema in The Walk, Leicester. The architect is Mr. P. A. Hinchliffe, F.R.I.B.A., of Barnsley.

A DONATION of £10,000 has been received by the treasurer of the Westminster Abbey Restoration Fund—being the money raised by the R.A.M.C. as their war memorial. A commemorative tablet will be placed in the nave.

IT is decided to invite competitors shortly to submit designs for the Gallipoli memorial on Cape Hellas. The monument will be in the form of an obelisk of such dimensions as to compel the attention of all who pass on ships.

PLANS have been submitted for the erection of a detached house at Stainforth, near Doncaster. Tenders are now being invited. The architect is Mr. P. A. Hinchliffe, F.R.I.B.A., of Barnsley.

BARNSTAPLE Guardians last week received tenders for painting the exterior of the workhouse from six firms. About twelve months ago, when the work was last tendered for, the lowest price was £234, and the Board decided to postpone the work. The tenders now received all showed a considerable reduction, being £185, £175, £159 10s., £141 13s., £129 10s., and £98. The last named was accepted.

AT the last meeting of the Scarborough Town Council in Committee the Borough Engineer submitted a sketch plan showing various areas in the borough, including land belonging to the Corporation, and also land under the jurisdiction of the Scalby Rural Council, in respect of which it is proposed to carry out a town-planning scheme. It was decided that the various town-planning schemes proposed to be carried out in the borough should be amalgamated into one scheme.

IT was stated lately in the French Senate that 90 per cent. of the area of the devastated regions in France had already been prepared for cultivation. Of this, about 80 per cent. is now under cultivation. About half of the manufactories and works that had been destroyed during the war have been reopened. Ninety-nine per cent. of the railway lines, which had been more or less destroyed, had been reopened, and about half the number of bridges and other works rebuilt.

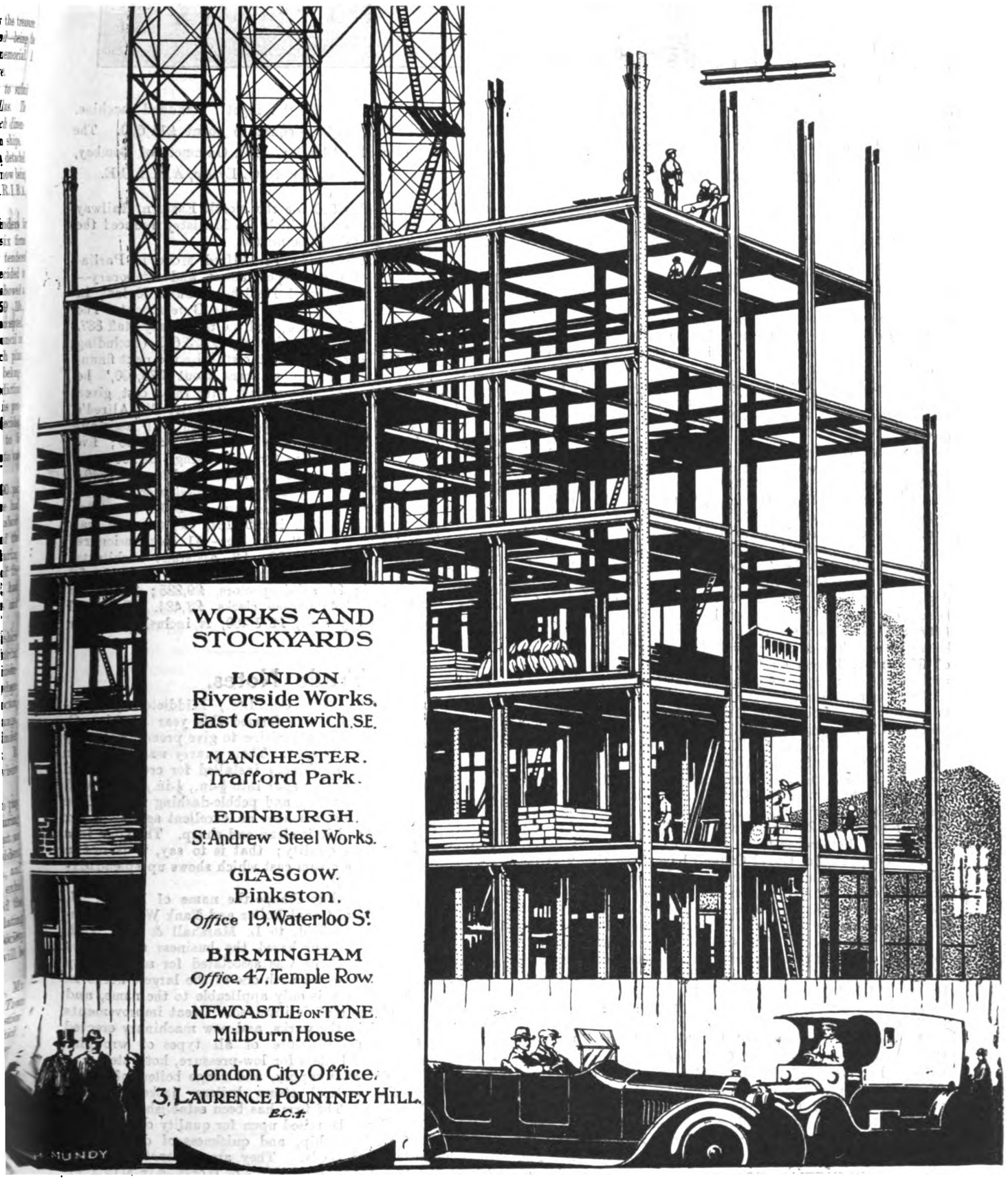
THE Sketch Club of the Leeds and West Yorkshire Architectural Society, which suspended its activities during the war, has now been revived. On Saturday last the members motored first to Bolton Abbey and then to Ilkley, where they were entertained to tea by Mr. John C. Proctor, A.R.I.B.A., the President of the Society, at the Grange. Included in the programme of the Club for the remainder of the season is a visit to Guiseley Church and Rectory. It is hoped in subsequent seasons that the Continental visits will be revived.

MR. PAUL WATERHOUSE, P.R.I.B.A., is arranging to pay a series of visits to allied Societies of the R.I.B.A. during the coming year. On September 20 he will be present at an At Home given by Sir William Portal, Baronet, President of the Hants and Isle of Wight Architects' Association, and the members of the Association at Winchester. The exhibition of the R.I.B.A. drawings will be on view, and the President will deliver a brief address on matters relating to the future of the profession. A visit to the Bristol Society of Architects has also been arranged, and particulars will be published later.

ON behalf of the Glasgow Institute of Architects, Mr. C. J. MacLean, the secretary, has forwarded to the Town Clerk (Sir John Lindsay) a letter dealing with the question of the proposed removal of the Tolbooth Steeple, in which resolutions adopted in 1915 are adhered to. In these resolutions the Institute stated that the Steeple, being a characteristic example of seventeenth-century Scottish architecture, and one of the very few remaining buildings of early date in Glasgow, and being an important feature in the architecture of Argyle Street, it was eminently desirable in the city's interest that, whatever might be done to the adjoining buildings, the Steeple should be retained in its present position.

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Concrete Blocks in India.



A CORRESPONDENT in India sends the accompanying view of the fine building which has just been constructed with concrete blocks in connection with the new Revenue Offices at Karachi. The building, which forms the Peons' and Bailiffs' quarters in the new Public Works scheme, has been built throughout with "Winget" concrete blocks, with reinforced-concrete staircases, flooring, and roofing, and is the largest structure of its type as yet erected in Karachi. Like many other buildings in India, this portion of the Revenue Offices affords striking proof of the rapid and economical qualities of the "Winget" system. It was completed, ready for occupation, in seven months—no less than five months less than the time specified in the contract. The building stands on the site of the old gaol, and consists of a series of sixty quarters, three floors high and 305 feet in length. All the blocks were made on the "Winget" standard machine. The cost was Rs.1,750,000—equal to about £11,600. The contract was carried out by Mr. J. C. Gammon, of Bombay, represented at Karachi by Mr. S. G. Lyttle, A.M.I.C.E.

Housing News.

THE Heywood Housing Committee again recommended the acceptance of a tender from the Building Guild for the erection of eighty-three houses at Barley Hall. Some months ago they made this recommendation, but the Ministry of Health refused to accept it, as the full number of Guild contracts for the district had been allotted.

THE Bolsover Urban Council have received the sanction of the Housing Commissioner to begin at once the erection of eight non-parlour houses at £686 4*s.* each, and twenty-two parlour houses at £738 16*s.* 10*d.* each, including fencing, footpaths, and drains. The houses are to be erected on the Moor Lane site, and are to be completed by January 30 next.

AMENDED tenders for the erection of thirty houses at Highfields, Hemsworth, were on Monday considered by the local Housing Committee, who provisionally accepted that of Messrs. Smith Bros. (Burnley), Ltd., who had reduced a former tender from £23,198 to £21,801. It was stated that this tender would have to be still further reduced before it was accepted by the Ministry of Health.

AT a meeting of the Abersychan Urban District Council on Monday the Clerk reported that, as a result of the deputation which waited upon the Ministry of Health on behalf of the Council, sanction had been obtained to build fifty additional houses at Penygarn, and the work had been started. The Ministry had also sanctioned the erection of fifty more houses on the Manor Road site, and had authorised the acceptance of one of the tenders received.

SIR CHARLES RUTHEN, the Director-General of Housing, is making an official inspection of housing schemes in a number of the principal industrial centres. He started his tour on Monday, and will visit the following towns on the dates mentioned:—Birmingham, Tuesday and Wednesday, August 23 and 24; Manchester, August 25 and 26; Liverpool, August 27; Gateshead, Newcastle, South Shields, and Tyneside areas, August 29, 30, and 31; Sunderland, September 2; Leeds and Sheffield, September 3; Nottingham, September 5.

THE Chippenham Rural Council have from time to time adjourned the question of erecting houses owing to the excessive cost. At the meeting on Monday last the architects' bills for work done were before the Council. That of Mr. R. E. Binkworth came to £2,995, and that of Mr. J P. Pearson £1,923. The Council discussed the items at some length, and it was stated that under the memorandum of the Ministry of Heath (which had not been agreed to by the R.I.B.A.) the fees would be considerably reduced. It was decided to vote the architects £150 and £100 respectively on account.

REVISED tenders received by the Darlington Housing Committee for 120 houses at Cockerton show a big drop in prices. For homes of the non-parlour type the tenders are £568 10*s.*, compared with £875 quoted for some three months ago, and £620 for the parlour-type, against £987 in the previous tender. The tenders are based upon the same specifications in each case, and £875 and £967 were in turn about £200 less than the prices previously quoted. The revised tenders have been submitted to the Ministry of Health. So far, only tenders for 300 houses have been let out of 1,800 (plus 500 for the North Eastern Railway Company), the number to which the Ministry reduced the estimates of the Housing Committee.

PARTICULARS are given by Sir Alfred Mond in Parliamentary papers of the staff—permanent and temporary—employed by the Ministry of Health on June 30 last, in carrying out the housing policy of the Government. The permanent staff numbered 156, and the temporary staff 887. The annual cost was approximately £323,647 (excluding war bonus). "I hope to reduce the staff by the next financial year to 160, costing in salaries about £70,000," he adds. Amongst the permanent staff, with their cost, given in a tabulated statement which accompanies Sir Alfred's statement, are the following:—One principal assistant secretary, £1,200; one assistant secretary, £1,100; five principals, £3,740; one director of housing, £1,200; one chief architect, £1,000; two assistant architects, £740; two inspectors, £1,310; twelve regional secretaries, £5,700; and eleven regional financial officers, £6.230. The total cost of the permanent staff is £50,187, exclusive of war bonus. The "temporaries" include:—11 commissioners, £11,800; 15 architects, £11,600; 28 assistant architects, £13,450; 58 surveyors and assistant surveyors, £30,025; 58 inspectors, £33,275; 24 sub-inspectors, £9,225; 286 male clerks, £58,846; and 47 women clerks, £7,424. The total cost of the temporary staff, £273,460, is inclusive of war bonus.

Trade Notes.

THE Middleton Mining Co., Ltd., Middleton-by-Youlgrave, Bakewell (which was formed this year by Mr. C. Waterhouse), are now in a position to give prompt delivery of all sizes of Derbyshire spar. Their quarry was opened in 1920, and up-to-date machinery installed for crushing and grading spar and screening spar into $\frac{5}{8}$-in., $\frac{1}{2}$-in., $\frac{3}{8}$-in., and $\frac{1}{4}$-in. sizes for rough-casting and pebble-dashing work. The small $\frac{1}{8}$-in. size and down makes an excellent aggregate for cement skimming, and it is clean and sharp. The spar is a high-class Derbyshire quality; that is to say, it is not a milk-white, but has a cream cast which shows up splendidly when the sun catches it.

IT has been decided to change the name of Messrs. J. Ashton Riley, Ltd., of Canal Boiler and Tank Works, Manchester Road, Huddersfield, to L. Marshall & Sons, Ltd. Mr. Lewis Marshall purchased the business some years ago, previous to which he was associated for some twenty years as managing director with one of the largest works in the trade. The change is only applicable to the name, and no alteration of the staff is involved. Great improvements have been effected in the works, and new machinary erected expressly for the manufacture of all types of wrought, welded, and rivetted boilers for low-pressure, hot-water, and steam-heating domestic supply, and range boilers of every description, also vertical steam boilers, jacketted pans, ovens, shelves, &c. The firm has been established for over sixty years, and can be relied upon for quality of material, excellence of workmanship, and quickness of despatch of their manufactured goods. They are contractors to the Admiralty, War Office, H.M. Office of Works, Air Ministry, Metropolitan Asylums Board, London County Council, &c.

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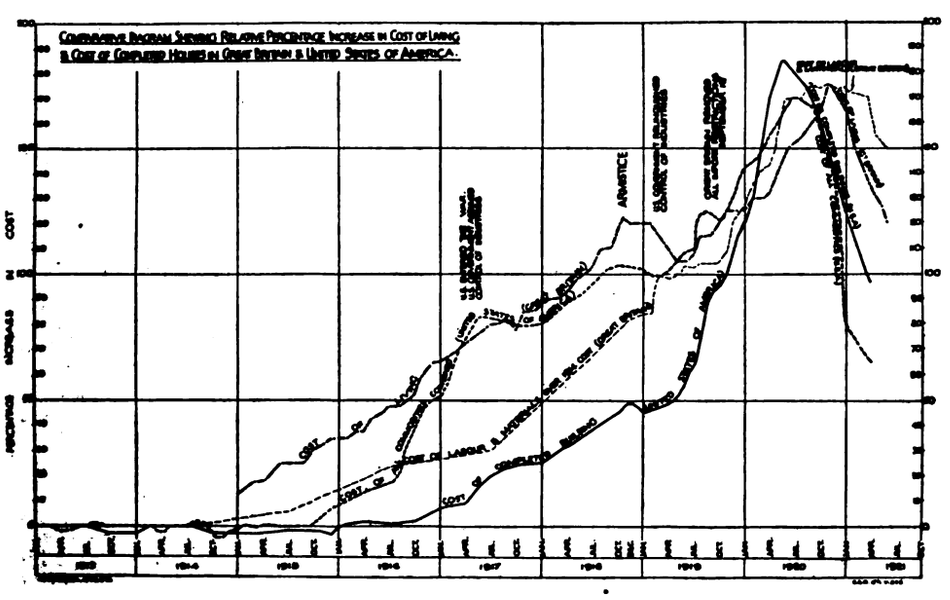
A Government Report on the Cost of Housing.

WE have before us the Report * of the Committee appointed to investigate the high cost of working-class dwellings, of which Mr. Stanley Holmes was Chairman, and Messrs. T. Robinson, John Ward, J. Carmichael, T. Barron, Arthur G. Cross, F. J. Gayer, James Gibson, M. Webster Jenkinson, William H. Nicholls, Ernest H. Selby, J. Walker Smith, and S. Stranks, members. Three of the members of the Committee are not in entire agreement with its recommendations, Sir T. Robinson signing a reservation and Messrs. T. Barron and S. Stranks signing other reservations. Both of these lean towards what may be described as the Labour standpoint, and are in favour of the Housing Policy of Dr. Addison being more or less followed. The conclusions of the Committee are briefly to the effect that the policy of interfering with private enterprise in land and building have been disastrous, that the Government scheme has been a great factor in increasing the cost of housing—a factor, we may point out, which has also increased the cost of all other building. The other factors are too numerous to be detailed, but include the dislocation produced by the War, the inevitable shortages of many building materials, the high cost of the labour used in producing many manufactured articles, and in transport, and the much-discussed element of profiteering, both by manufacturers and contractors.

Kicking a dead horse is an unprofitable occupation, and if it were not that the public have short memories it would be unnecessary to point out that the whole of the consequences which would arise out of the initial interference with building speculation produced by the Finance Act of 1910 were both foreseen and accurately predicted by everyone having expert knowledge of the subject. The mistake then committed was a wilful mistake, comparable to jumping over the edge of a precipice after due warning. We have been told *ad nauseam* by the supporters of the Government action that housing by means of private enterprise had failed, but in reality nothing of the kind had occurred. Rising prices had for a time produced one of the recurrent periods of partial inactivity which have always been followed in past times by periods of activity; but by the eve of the Great War the Act of 1910 had brought about an almost complete stoppage in the provision of accommodation for the working classes, due, we hold, solely to unwise interference. The War only accentuated the difficulty, which was an antecedent one. Those who have taken a wrong turning are wise if they retrace their steps; but this is precisely what those in authority failed to do: they persisted in their course, and only in the eleventh hour, after millions have been spent and difficulties increased, have they been forced by inevitable facts to admit their errors. We do not admit for one moment that any advantages obtained recently could have been produced under the Government scheme, and that only. It was possible, and comparatively easy, for local authorities, using the powers conferred on them, to raise the standard of housing in their areas, to limit the number of dwellings to an acre, and to ensure decency and order in lay-out schemes. All these objects were covered under the provisions of the Housing and Town Planning Act, and the actual filling in of the canvas so produced could have been left, as heretofore, to the speculator.

What was done was, as the Committee's Report points out, to drive out of a business they well understood a class of men who have built cheaply and who best understand the nature of the wants of the case, and to substitute for them the services of a different class of builders, many of whom entered the field unwillingly; and, in order to induce them to take on the work in very difficult times, to give them a form of contract the provisions of which largely

* "Ministry of Health Report of the Departmental Committee on the High Cost of Building Working-Class Dwellings." London: H.M. Stationery Office. 1s. net.



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relieved them of any direct responsibility in the matter of cost.

In addition, the fact that local authorities are both hounded on to build and relieved of any financial responsibility above a 1*d.* rate has been a direct incentive to acquiescence in high prices. The Committee recommends that in future schemes any district shall be made directly responsible for a fixed proportion of the cost; but it is obvious that its members do not anticipate or wish for any resumption of Governmental housing. They are, we are glad to see, opposed to any form of contract other than the old time-honoured fixed-sum contract, which, they say, it is reasonable to expect contractors to be willing to enter into now conditions are becoming stabilised. The questions referred to the Committee have been dealt with both exhaustively and carefully, but in a way we feel that their time has been wasted, for the whole tenour of their Report may be summed up in the words "As you were!"—a conclusion which is obvious to persons of the smallest intelligence.

It is a sorry task to go laboriously through a catalogue of self-evident mistakes when the only sane thing is to write off our losses and accept the obvious axiom that no Government can wisely extend its functions as far as the usurpation of activities which should be obviously those of individuals. We know that we have been governed by a great bureaucracy, but there is a shrewd suspicion that many of the controlling spirits of that bureaucracy are advanced Socialists who are content that the result of their measures should depreciate values and stultify industry till it will be willing in its difficulties to try further desperate measures to escape from a morass of difficulties. We have heard such theories, but should be glad to think they were unfounded; yet how else is it possible to satisfactorily account for the constant refusal of our rulers to accept conclusions founded on common sense and experience?

We publish one of the diagrams on the Report, which is interesting as showing the close relation between rising prices in building and the cost of living, both of which, we are glad to record, are now showing signs of a sharp decline. But we can only counsel patience, coupled with a determination to remove all that stands between the public and freedom, to solve the problems of life in their own way. The task is not one for Governments, but must be dealt with by a process of slow evolution; and in the meantime there is, as the Report shows, no absolute panacea for our difficulties.

Illustrations.

ADELAIDE HOUSE, LONDON BRIDGE. Sir John Burnet, A.R.A., and Partners, Architects.

We publish an illustration of Sir John Burnet's fine building, which our readers will remember formed one of the outstanding subjects of interest at the recent Academy exhibition, both on account of its size and its novelty in treatment. The description of the requirements in design which are being introduced are very interesting, and indicate the care and attention given by the architect to his work.

This building is being erected on the old Pearl Assurance site on the east side of Adelaide Place, opposite Fishmongers' Hall, at the north end of London Bridge. It will be used partly as a storage warehouse for the adjoining wharf, but largely as an office building for Mr. R. Tilden Smith, from designs by Sir John Burnet and Partners, architects, the general contractors being Sir Robert MacAlpine & Sons. The building will be 102 feet high to the top of the main stone cornice from the pavement in the centre of Adelaide Place. It will be faced with granite on the lower floors and Portland stone above, and of fire-resisting construction throughout.

It has proved necessary to pile the foundations to a depth of about 50 feet below the level of Lower Thames Street, which, in turn, is about 24 feet below the level of Adelaide Place and the approach to London Bridge.

The building has been designed largely to form a pylon to dominate the approach to the city from the south. Since Fishmongers' Hall was built, many other buildings have been erected on the left bank of the Thames which are not as charming in design as the Hall, but are much greater in bulk, and the Hall is now too small to command these and dominate the approach to the City. On the other hand, this building has been designed to be in scale with the Bridge, and to stop the irregular line of wharves and warehouse buildings on that side of the river holding the approach to the City and sufficiently dominating the other buildings as a strong pylon should do. All the faces of the building are being erected to a batter of $\frac{1}{8}$ in. to $\frac{1}{4}$ in. to the foot, to give solidity and necessary repose to such a structure. Great care is being exercised over the details, all mouldings being designed and surfaces arranged to give a sculpturesque effect, and all arrises being slightly rounded to a radius with the object of producing refinement in detail.

The floors, like those of most of the American commercial buildings are of equal height and importance, a fact which has an intimate bearing on the character of the design.

LEA CROFT, NOCTORUM, CHESHIRE. Rees and Holt, Architects.

Erected on the Bidston slopes overlooking the Wirral peninsula, Dee estuary, and Welsh hills from the designs of Mr. T. Taliesin Rees, F.R.I.B.A., F.S.I., of Messrs. Rees and Holt, Liverpool. The half-timber work is framed in oak, the roof covered with Broseley tiles. The contractor was the late Mr. William Bullen, of Liverpool.

"The Architect" Fifty Years Ago.

September 2, 1871.

It is said that a certain eminent but perplexed architect, seeking relief from an attack of Ayrton on the brain, resorted the other day to a spiritual *séance*, where he besought a word of advice from any eminent professional predecessor who might happen to be in the way. In due course an intimation was received that a meeting had been held, with the late Sir Christopher Wren in the chair, and that the following intelligent and forcible resolution, on the motion of the late Mr. Inigo Jones, had been unanimously arrived at, and ordered to be rapped out for the consolation of the applicant:—

Seeing what perils him environ
Who only meddles with cold iron,
How shall we estimate his tort're
Who meddleth with bricks and mortar?
Great woes and small alike collect
Round great or little architect,
But he is d—d beyond recoverment
Who's great enough to serve the Government.

To which the following rider had been moved, but, not being seconded, had fallen to the ground:—

Wherefore, whoe'er would save his soul
Must serve South Kensington and Cole.

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Notes and Comments.

A Doll's House.

A WONDERFUL doll's house is to be designed and presented to the Queen by a group of sculptors, painters and architects, which will include Sir Edwin Lutyens, Sir John Lavery, Sir William Orpen, Sir George Frampton, and Mr. J. S. Sargent. It is to be designed to a scale of one inch to a foot, and will be some eight feet high. The panels of the walls will be decorated with portraits of the Royal Family, and the sculptors will fashion statuary in miniature. Every part of the model will be carried out to form a replica of an actual building, and it will be equipped with heating apparatus, hot-water services, and fuel and wine cellars. Publishers will provide small model bound books, and the house will contain models of the Royal Family. Sir George Frampton is to carry out the marble staircase, and an appropriate garden forms part of the scheme. We have no doubt the result will be interesting, but more interesting still would be the inner secret as to when and how the idea was originated and what specific purpose it is to serve. Possibly it is the outcome of a period of rest after too intense absorption on the subject of housing?

The Government's Future Housing Policy.

UNDER the above heading Mr. E. G. Holtom has written a letter to the editor of the R.I.B.A. Journal, in which he points out the disastrous effect of the present system of rating by which excessive burdens are put on property, land, and building, and under the operations of which all sections of the community have to contribute equally without reference to their ability to pay, or to the relative value of their work for the general community. The question has been raised before by Mr. Gibbs, of Sheffield, who has propounded a very carefully thought-out scheme under which those who improve property would be called on to pay in proportion to the amount of income they were able to make out of the use of premises and their improvement, and not as at present on the extent or costliness of premises, irrespective of their uses. In effect it was a proposal to substitute a local income tax for the present system of rating. As Mr. Gibbs pointed out a builder required large premises, and a business man making as much or more income comparatively small ones, and under his proposals both men would be assessed on their income and not on the extent of accommodation required for purposes of business. The proposals always commended themselves to us, and would constitute a great reform in the existing system, which penalises those who spend on the improvement and development of property, and so hampers enterprise.

A Building Strike.

A CONTEMPORARY refers under the heading of "An Astounding Strike" to the action taken by the trades unions concerned in calling out men employed by Messrs. Tarrant on a housing scheme at Scunthorpe, in Lincolnshire, the facts being these. Messrs. Tarrant proposed a system under which bricklayers employed should be paid at the usual trade-union rates, but at at the end of each week the amount done was examined, and in the case of good results being produced by any man a bonus was paid to him over and above the trade-union rates, which was worked out at an average of 2*s.* 6*d.* an hour, instead of the union rate of 2*s.* 1*d.* The Operative Bricklayers' Society then stepped in and claimed that this was a system of piece work, and must be abandoned, and on the refusal of the contractors to comply called out the men of their own and of other unions. Why our contemporary should call this an "astounding" strike we do not know, as we should have thought that everyone over the age of seventeen in this country understood the system of tyranny exercised under the name of trades-unionism; which should and must be absolutely broken down if this country is to occupy a favourable position in the modern world.

Big Housing Scheme Litigation.

IN the Vacation Court on Thursday (August 25), Mr. Justice Branson dealt with litigation arising from a big housing scheme commenced in Liverpool early in 1920 following Dr. Addison's policy for dwellings for the working classes.

The Economic Building Corporation, Ltd., sued the Liverpool Corporation and Messrs. John Leaning & Sons, architects and surveyors, of Bedford Row, London, for a declaration that certain quantity certificates issued were invalid, and an injunction restraining the defendants from acting upon such certificates.

It appeared, said Mr. Jenkins, K.C. (for the plaintiffs, who are builders), that the defendants were desirous of building houses for which the country at the time were clamouring. The Government, through Dr. Addison, were pressing local authorities to build. Plaintiffs were among the number of builders who exhibited at the "Daily Mail" Ideal Home Exhibition, and were advocates of the use of cement blocks for building. In May 1920 the Liverpool Corporation agreed that the plaintiffs should build 2,000 houses upon selected sites, the prices of each house to be between £825 and £850, according to type and exclusive of extras. The basic price of the whole of the houses was £1,659,690. In all 982 houses had been completed or commenced. The plaintiffs obtained all the plant and erected accommodation for the workmen who were to make the cement blocks and build the houses, and the work proceeded. In March 1921, however, disputes arose between the parties concerning the issue of the quantity certificates by the Corporation architect, and the matter was about to go to arbitration when arrangements were made to stay the arbitration and provide a *modus vivendi* pending the final completion of the contract. Messrs. Leaning & Sons were appointed quantity surveyors, to value the work upon the basis of between £960 and £990 per house including extras. That would bring the total value of the whole estate up to over two millions. In May 1921, Messrs. Leaning & Sons and the Liverpool Corporation alleged that on the work done the plaintiffs had been overpaid a sum of about £339,000. Plaintiffs alleged that the Corporation demanded the repayment of that large sum, and the rate at which the deduction would be made from future monthly amounts due to the plaintiffs would cripple them and prevent them carrying on. Up to now sums of £951,982 had been paid the plaintiffs for work completed.

Mr. Colam, K.C., for Messrs. Leaning & Sons, submitted that his clients had no case to answer, and Mr. William Arthur Leaning, giving evidence, said he had a large experience in valuing this class of work under housing contracts. The suggestion that he had not valued the houses in question on the basis of the agreement was not true. Plaintiffs, too, had been given the full benefit of the increased prices.

Mr. Jenkins (cross-examining): I suggest you have made all sorts of blunders about this agreement?—Indeed I have not.

Mr. Leaning said he had been perfectly impartial to all parties.

Mr. Jeeves, K.C. (for the Liverpool Corporation), said the parties agreed to accept Messrs. Leaning & Sons' certificates, and now must accept them seeing that there was no evidence to prove that the certificates were not accurate. Even supposing the certificates were inaccurate and the architect incompetent, if he acted honestly the plaintiffs were bound to accept his certificates.

In his judgment his Lordship found that Messrs. Leaning & Sons had carried out their duties in a faithful manner under the agreement, and plaintiffs could not succeed on the claim that the certificates were invalid. As Leaning & Sons had calculated the amounts on the certificates upon a proper basis the plaintiffs had got all they were entitled to.

The action was dismissed with costs to the defendants.

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Art News of To-day.

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THE Twenty-One Gallery has now opened its Summer Exhibition, which will continue into the month of September. This gallery in Durham House Street may now be considered as the London centre of the Sennefelder Club, which has done—and is doing—such excellent work in lithography; and in fact the Sennefelder Club comes very much to the front in the present summer exhibition. In this connection we believe we shall be right in including the lithographs here shown of Spenser Pryse and C. H. Shannon, R.A., and possibly also the delightful little upright figure in lithography by Mr. Claude Shepperson, under the title of "The Flirt."

The large lithographic cartoons by Spenser Pryse of "The Meet," "The Theatre Queue," broad in treatment and strong in drawing, as well as the splendid group of female figures, more classical in subject and treatment, under the title of "Oceanides" would be sufficient alone to mark out this artist as one of the most vigorous figure draughtsmen whom we possess. C. H. Shannon's work in lithography will be well known to many of our readers: it is work in which the artist is prolific, it has great beauty and charm of drawing and feeling for line, though it is sometimes uneven: for instance, while it reaches a very high point in the beautiful group of female figures in "Morning,"—which recalls a somewhat similar subject treated by Albert Moore—in "The Cup of Tea" it becomes somewhat careless and trivial. Beside these the lithographs of figure subjects by Fantin Latour ("Venus et Amour," "Duo des Troyens") do not call for special notice; but on the other hand there is a scene of boats and river, "On the Thames" under the name of Van Gravesend, which is a wonderfully strong piece of work, and two etchings on the staircase of English inns ("Totterne Inn" and George Inn, Beaconsfield") by F. L. Griggs, have the fine technical quality of this artist, to which we have more than once alluded in these columns. All these "summer exhibitions" may be considered very fairly as more or less a "carry over"; but the present keeps the qualities of choice and distinction which are a note of the Twenty-One Gallery.

Mr. P. A. de Laszlo, whose portrait work has been lately illustrated in one of "The Studio" extra numbers, has now returned to his new home in 3 Fitzjohn's Avenue, Hampstead. During his recent visit to the United States, whence he has only just come back, he painted portraits of President Harding, General Pershing, and the State Secretary, Mr. Hughes.

Sale bargains in pictures are still to be had, and auctioneers, who are possessed of some knowledge of art matters, must often have exceptional opportunities. Recently, Mr. Percy Bartlett, a florist and seedsman, had the chance to purchase from the late Sir Harry North's sale a large canvas representing the early Christian martyrs in the Coliseum, by C. Barilli, for the not overwhelming sum of one guinea. The painting had been acquired by the famous "Nitrate King," Colonel North, father of the late Sir Harry North, for his collection: it has been insured by its new owner for one thousand guineas, and is stated to have been valued for just double that amount.

One of the glories of the old Belgian city of Ghent, which is scarcely less interesting than Bruges itself, is that masterpiece of Flemish art, painted by Hubert and Jan Van Eyck, known to the world as "The Adoration of the Mystic Lamb," which has since the War been able to be restored in its entirety, including the panels which were in Brussels and Berlin, to its original home in the Cathedral of St. Bavon. The celebrations of this event in the autumn of last year at Ghent were duly noticed in these columns. The noble painting, marvellous in its finish, and yet with all its mediæval detail complete as a whole, consists of numerous panels, of which the Adam and Eve panels had been removed to Brussels in 1861; being replaced by copies dressed in skins, and the other wings purchased—having come into the hands of a dealer—by the Berlin Museum. As mentioned above, all these panels are restored to St. Bavon, and the picture is complete in every respect; but it has been now decided by the Belgian Government that this great polyptych of the Van Eycks shall be transferred to the Museum of Ghent.

The Palace of Versailles in certain portions stands badly in need of repair, the parquet flooring of the interior being in need of overlooking, and the two Trianons, the Grand and Petit Trianon, with the "Laiterie" with which Marie Antoinette's memory is associated. In this connection it may be mentioned that a strong protest is being made against the dumping of rubbish and proposed erection of an incinerator and electric plant within some 250 yards of the Petit Trianon and Marie Antoinette's farmhouse, which, besides the fumes and dust, would destroy the unique charm of this locality.

S. B.

New Books.

"Nollekens and his Times, and Memoirs of Contemporary Artists from the Time of Roubiliac, Hogarth, and Reynolds to that of Fuseli, Flaxman, and Blake." By John Thomas Smith, Keeper of the Prints and Drawings in the British Museum. Edited and annotated by Wilfred Whitten. With eighty-five illustrations. In two volumes. London: John Lane, the Bodley Head. Two volumes, £1 11*s.* 6*d.* net.

THIS fine reprint of a work which has long been famous as a chronicle of art life in England in the later years of the eighteenth century was, as we are informed by the publishers, already completed and in print in the summer—that fateful summer—of 1914, but has been held up from publication by the events of the last seven years. It is admirable in its printing and "format," and the notes by Mr. Wilfred Whitten add very usefully to the information which these volumes contain: many of the illustrations are from Mr. John Lane's own very choice collection of eighteenth century paintings and engravings.

Joseph Nollekens, the subject of this biography was born in London in 1737; and his biographer, John Thomas Smith, in his youth employed by the sculptor in his studio, in his later years Keeper of the Prints in the British Museum, died in 1833. In a sense this is a disappointing book, in spite of the immense amount of really valuable and amusing gossip of the art life of the time which is contained in its pages. Old Nollekens, as he was called, was considered, and probably rightly so, a rich man; and his biographer had expected to be liberally remembered in his will. This was not the case, and this fact was not forgotten when Smith came to write the sculptor's biography, in which he does the fullest justice to his faults of meanness and cheeseparing—which were fully shared by his wife—but scarcely to the considerable abilities which his first employer and friend must have surely possessed.

But after all Old Nollekens himself—whom Rowlandson had caricatured while modelling his "Venus"—is here only a peg to hang a wonderful series of personal recollections of the artists and social celebrities of that no less wonderful time in our national art. They all move through these pages—Dr. Johnson, who remarked, "Sir, I think my friend Joe Nollekens can chop a head out with any of them"; Angelica Kauffman, in the story of her unlucky marriage, Flaxman, Fuseli, Richard Wilson, William Blake, Benjamin West, P.R.A., Richard Cosway, R.A., Ozias Humphry, R.A.—almost every figure who was known in the famous English art of that time. To read these memoirs is to meet and converse with these men on intimate terms. We owe this at least to Old Joe Nollekens, and his not very friendly biographer.

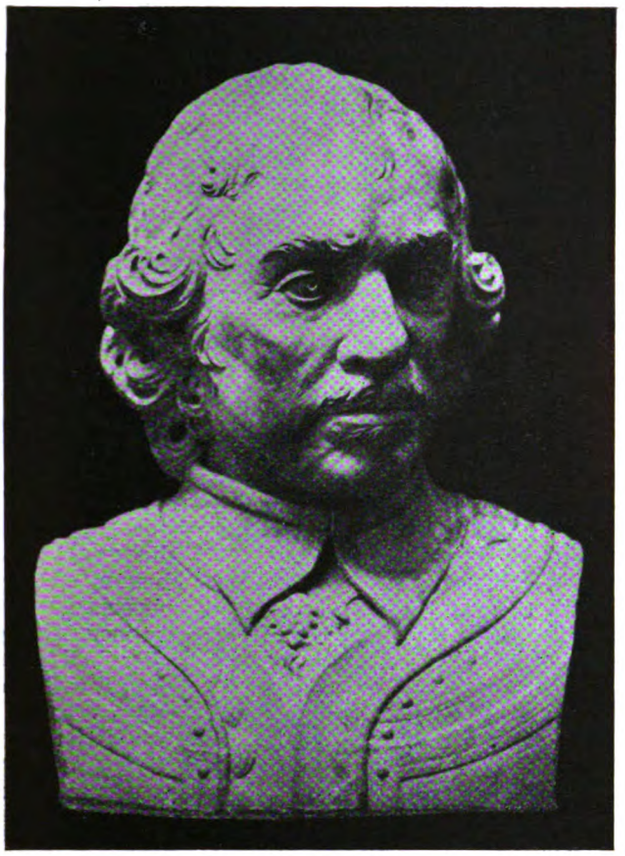
S.B.

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Studies of the English Sculptors from Pierce to Chantrey.

III.—Edward Pierce (ob. 1698).

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TERRA-COTTA HEAD OF OLIVER CROMWELL.
After Edward Pierce. (National Portrait Gallery.)

(*Continued from p. 26.*)

Singularly little is known of this sculptor, though his works are among the very best ever produced in England, and, as he is the only one of our sculptors who worked for the heroes of the Commonwealth, he is here given precedence over Cibber, who only came to England in 1659. His father, a painter of the same name, was an assistant of Vandyck, though he was also employed on decorative work at Whitehall, and executed many church ceilings and altar pieces, most of which, notably that of old Covent Garden, perished in the Fire. His other work was "Landscape, history, and architecture," and one of his landscapes hung in the collection of James II. He survived the Restoration, and is said to have been buried at Stamford a few years later.

The facts generally known about the son, the date of whose birth is unknown, are that he was a "pupil" of Francis Bird, and with one Shorthose was employed as a mason to build St. Clement Danes under the direction of Wren, the original agreement, dated May 13, 1680, in which his name appears as Pearce, being in the British Museum; that he carved the four dragons on the Monument, the estimates for which, Mrs. Poole tells me, are in the Bodleian, and a magnificent vase and pedestal, the pendant to a similar one by Cibber at Hampton Court, also for Wren; that a statue of Gresham and the Edward III. in the Royal Exchange were from his hand; that he made a marble bust of Thomas Evans (1687), Master of the Painter-Stainers, for the Company's Hall, and the very curious painted wooden statue of Sir William Walworth on the staircase of Fishmongers' Hall; that he produced a bust of Cromwell and a "model of the head of Milton," the latter formerly in the possession of Vertue, the former sold by auction in 1714 and now at Oxford; busts of Wren and Newton (?) for the Bodleian Gallery at Oxford; and that he executed an enormous classicizing monument, 20 feet by 12 feet, to Sir William Maynard (ob. 1640), Lord-Lieutenant of Essex and Cambridge under Charles I. in the church of Little Easton, Essex, representing him and his wife in Roman costume against a marble background surmounted by the broken pediment dear to his and the next generation; a translation of the long and curious inscription may be read in Mr. Beresford Chancellor's book. This erection stands to Pierce's other work much as Gibbons's enormous tomb at Exton does to his, and gives no real conception of his unique and exquisite achievement in portrait art.

Pierce, "the carver, lived & died at his hse lowr end of Surrey street in the Strand, buried at St. Mary le Savoy, about 23 or 24 years ago that is 1698, he built under the care of Sr. Chris Wren St. Clement's Church," so Vertue notes. He cannot, therefore, have been a pupil of Bird, since that sculptor was only born in 1667; but he may well have been an assistant of that sculptor, as he was of Wren. What is much more interesting is that his works fall into two classes, pre- and post-Restoration, the former including only two portraits which can still be traced—those of Milton and Cromwell. The first of these, as no modern writer on Pierce appears to have noticed, is the magnificent model, obviously from life, in the library of Christ's College, Cambridge, the identity of which with the bust once belonging to Vertue has been most satisfactorily shown. It is illustrated and described in Dr. G. C. Williamson's admirable bibliography of Milton Portraits, and the story may be briefly summarised here. In 1757 it was sold to "Mr. Reynolds" (? Sir Joshua) for £9 12*s.*, and Thomas Hollis, who notes the fact and subsequently bought the bust from the purchaser for twelve guineas, says: "About two years before Mr. Vertue died he told me that he had been possessed of this head many years, and that he believed it was done



BUST OF WREN. By Edward Pierce.
(Ashmolean Museum, Oxford. Photographed by kind permission of C. F. Bell, Esq., Department of Fine Arts, Ashmolean Museum.)

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PORTRAIT OF THE DUKE OF BUCKINGHAM AT THE END OF HIS LIFE.

by one Pierce, a sculptor of good repute in those times, the same who made the bust in marble of Sir Christopher Wren, which is in the Bodleian Library." Now Vertue knew Milton's daughter, Deborah Clarke, and had himself engraved an admirable portrait of the poet, so that its authenticity is beyond question. Hollis considered that it was probably executed soon after Milton had written his "Defensio pro populo Anglicano" in 1651; but I am inclined to think this is too early a date. The eyes, if compared with the vivid life of those in Pierce's other busts, bear evident tokens of blindness. As the poet only became blind in 1654, we shall probably be right in assigning the bust to a period between that date and Milton's disgrace at the Restoration. This date is confirmed by the Cromwell, a magnificent and virile work recently acquired by the Ashmolean Museum, which certainly belongs to the latest period of Cromwell's life, and is incomparably superior to the terracotta version in the National Portrait Gallery.

How came young Pierce to have access to these two great men? We can only conjecture that his father was still employed in some capacity at Whitehall, and that in this way the son was able to have access to the Lord Protector and his Foreign Secretary. This would account also for the period of obscurity after the Restoration, when the sculptor who had so nobly commemorated the chiefs of the opposite party, would find it advisable to lie *perdu* for a time.

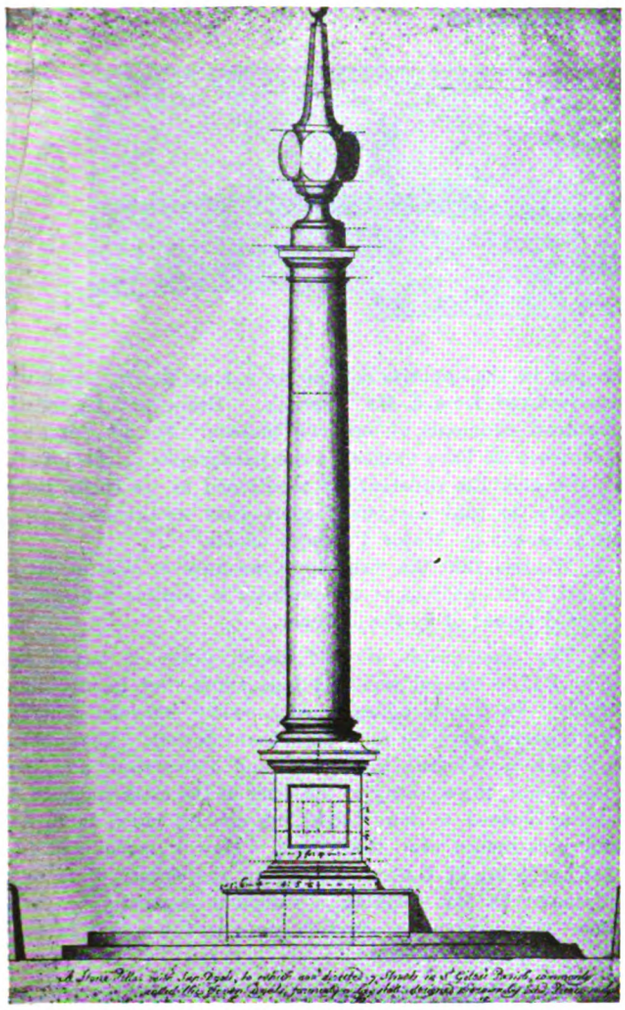
Among the treasures of the Print Room at the British Museum are two interesting drawings by Pierce, one of which establishes the hitherto unknown fact that he was the author of the famous Dial at Seven Dials, now at Oatlands (Wheatley & Cunningham's London, Vol. III., p. 234), while the other proves that he was commissioned to prepare drawings for a superb monument to George Villiers, second Duke of Buckingham, to be erected in Westminster Abbey. The first is a careful architectural drawing representing, in the words of the inscription, "A Stone Pillar with Sun dyals, to which are directed 7 Streets in St. Giles's Parish, commonly called the Seven Dyals, formerly a Laystall, designed & drawn by Edwd. Pierce, sculptor." The second represents a marble sarcophagus with recumbent figures of the first Duke and Duchess, with a swaddled babe lying on the step in front and a species of pyramid flanked by arms behind; to either side are standing figures of the second Duke and Duchess in niches framed by Corinthian pillars supporting a finely proportioned entablature; above, a figure of Fame, standing on a flattened dome, dominates the centre. That the recumbent figures represent the first Duke and Duchess is certain, from the swaddled infant, their eldest son, who was buried in the Abbey March 17, 1627, and from the figure of Fame, both effigies and figure being echoes here from the actual Villiers monument, the work of Stone, in the Abbey. Contrary to custom, the second Duke and Duchess are represented in the dress of their own day; he wears the robes of the Garter and a full periwig, and carries a bâton in his right hand. The inscription runs: "Designed by Edwd Pierce for ye Duke of Buckingham, to be set up in Westminster Abbey." The drawing is undated, but must belong to the months just after June 7, 1687, when the Duke was buried with royal pomp in Westminster Abbey. The monument—owing doubtless to the Revolution—was never erected, but the original study for the figure of the Duke, here reproduced by the kindness of Mr. A. T. Bolton, F.S.A., is, I believe, the statuette in the Soane Museum. Scale, details, such as the bâton and the very unusual form of cravat, and the startling resemblance to the mezzotint of the Duke at the end of his life by Beckett after S. Varelst, all point to this conclusion, but I hope to deal with the subject at greater length elsewhere.

The drawing also, I think, enables us to identify another Abbey monument as the work of Pierce, since the curious coroneted obelisks that flank it recall the

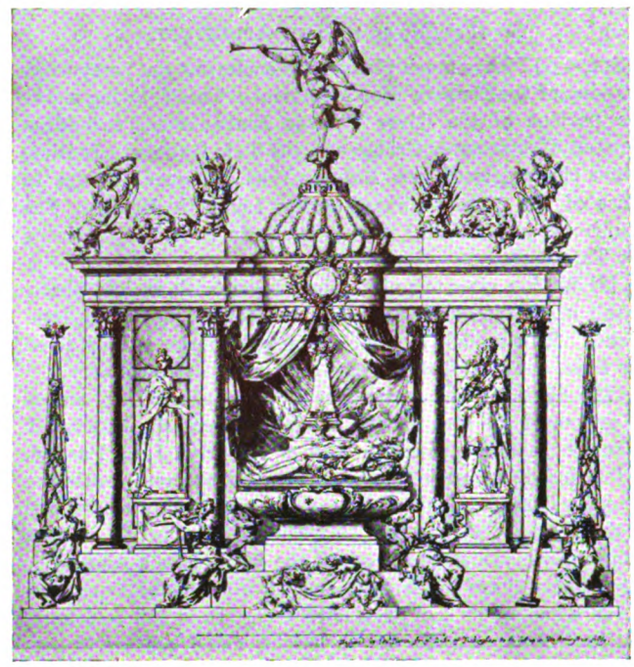


STATUETTE OF THE SECOND DUKE OF BUCKINGHAM. By Edward Pierce, for a Proposed Monument in Westminster Abbey. (? Soane Museum.)

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DRAWING OF THE DIAL ERECTED AT SEVEN DIALS, ST. GILES. By EDWARD PIERCE. (British Museum.)



DRAWING OF THE PROPOSED VILLIERS MONUMENT IN WESTMINSTER ABBEY. By EDWARD PIERCE. (British Museum.)

obelisk circled though not crowned by a coronet which supports the urn containing the heart of Esmé, the little Duke of Lennox; since the device does not apparently occur elsewhere we are probably justified in attributing it to Pierce.

Unfortunately for us, Vertue knew very little about Pierce, not even his name. In 1721 he records that the elder Pierce "died in London 1666, leaving behind him three Sons, who all became famous in their different ways. One was a most excellent Carver in Stone, as appears by a noble Marble Vase of his doing at Hamton Court" (sic), for which and for a "great marble urn." Mr. Law quotes contemporary evidence, and which is referred to by Defoe. Of later date is his account of the bust of Wren, already quoted; in the notebook of 1736-41 occurs the passage: "In Bodleyan Gallery the Bust in Marble of Sir Christr Wren done by . . . Pierce the Same person as my moddel of Milton." In 1736 Vertue notes that he sketched Pierce's portrait by Fuller at a sale, and subsequently bought it, as Walpole tells us, who bought it at Vertue's sale; it is erroneously entered as "Pierce *senior*, statuary," in the description of Strawberry Hill, and with another picture only fetched two guineas at the famous sale. For the Newton said by Dallaway to be at Oxford there is no evidence in Vertue or Walpole, and Mrs. Poole informs me that she cannot trace it; probably therefore Dallaway confused it with Wilton's later bust. Vertue does, however, mention the "Bust, Marble, carved by Mr. Pierce 1687" of Thomas Evans; but neither in his MSS. nor in Ward's careful History of Gresham College with its MS. annotations in the British Museum is there any allusion to the Pierce statue of Gresham or that of Edward III. in the Royal Exchange. That the Gresham was not, as is commonly asserted, at the Exchange itself is certain; the two statues there are fully discussed in the chapter on Bushnell.

Of the post-Restoration busts the great Wren is the chief. Originally in the Bodleian, it now stands beside the Cromwell in the Ashmolean Museum. Vertue, in an unpublished passage in one of his MSS., says of it: "Sr Christopher Wren had his picture drawn several times—and also cutt in Marble which is lately reposited in the picture gallery at the bodleyan library, Oxford," and it is said to be the best portrait of Wren extant; it was executed about 1673. We would go further and say that it is without exception the finest portrait bust produced by any sculptor of the English school. Bernini himself never surpassed the superb rendering of texture in the hair and flesh, the living, even the palpitating, likeness, which carries conviction at a glance. The roll of the Illustrious Obscure contains no greater name than that of Edward Pierce, and it is high time that this glory of the English school, this assistant of Wren and Bird (who himself admired and copied the works of Bernini) was given his rightful place among the artists of his age and country.

(To be continued.)

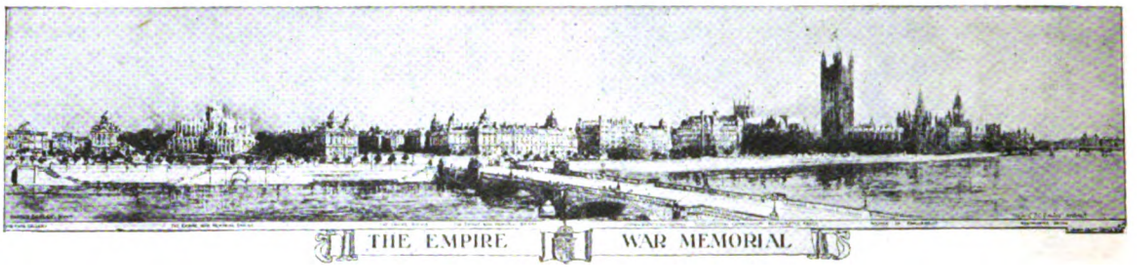
THE Institute of Metals will hold their autumn meeting in Birmingham on September 21, 22, and 23.

FOLLOWING the precedent established by many of the public schools, the Eastbourne College War Memorial Committee have decided that an old boy should be entrusted with the design and carrying out of the extensive war memorial buildings which are contemplated. In accordance with this decision, Mr. Geoffrey C. Wilson, A.R.I.B.A., a partner in the firm of Messrs. Bourchier, Tatchell & Galsworthy, of London, has been appointed architect.

THE death took place last week of Mr. Axel Herman Haig, the etcher of cathedrals and other Gothic buildings. He was born in 1835 in the Island of Gothland, studied as a youth in a Swedish naval dockyard, came over to Scotland to find work, and then settled in London as assistant to various architects, including Ewan Christian and William Burges. Finally he abandoned architecture and took to etching, and worked on the plates of cathedrals with which his name was everywhere associated. He exhibited largely, both in this country and in the European capitals. Mr. Axel Haig was an old friend to this journal, and a considerable number of his fine plates were reproduced in THE ARCHITECT. In 1905 we republished at intervals a selection of his Continental sketches.

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Major Pawley's Scheme.



THE EMPIRE WAR MEMORIAL

To the Editor of THE ARCHITECT.

SIR,—[1] I have much pleasure in enclosing you perspective drawing of the Empire War Memorial. This drawing shows the portion of the River Thames Embankment extending between Westminster Bridge and the Tate Gallery. It illustrates the suggested new Empire War Memorial Bridge in place of the present almost useless Lambeth Bridge. The Empire War Memorial Shrine is shown practically joining the Tate Gallery.

[2] With a view to publication, I herewith enclose photograph of the model of the Shrine which is just being completed. This model, in the opinion of experts, is considered the finest bit of Gothic carving executed in this country.

The Shrine is the centrepiece of this undertaking, and it is estimated to cost in the neighbourhood of £2,000,000. It is the creation and inspiration of Major C. J. C. Pawley, V.D., and partakes of the form of a Greek cross consisting of seventy-eight chapels each containing a window symbolical of the strategic phases and dramatic episodes in the various campaigns in which each and all the Allies bore a leading or subordinate share in Armaggedon, slowing smouldering out, let us hope, to its too protracted end. It is 350 feet long, 350 feet broad, and 250 feet in height, and I venture to predict, when completed, will move the world to admiration and wonder. Alike in the loftiness of its conception as in the surpassing elegance of its design and consummate craftsmanship, it has, I submit, no peer in either the ancient or modern world.

[3] The river embankment, which is illustrated, can be taken as the base line of an equilateral triangle, the sides of the triangle being Vauxhall Bridge Road and Victoria Street. The apex of the triangle being Victoria Station.

The part of Westminster with which Major Pawley proposes to deal is mostly in a deplorable condition. The district, mainly eighteenth century in character and once the *habitat* of the wealthy, has long since generated in a slum. If some new and comprehensive rebuilding scheme is not soon adopted an unusually fine opportunity for improving London's amenities will be irretrievably lost. Londoners must not stand by and allow this valuable and important area to be rebuilt piecemeal fashion upon its present hopeless layout. We are constantly criticising our civic forefathers' lack of imaginative foresight; let us not pass on to our descendants the same grievance against ourselves.

The scheme, as a town-planning improvement, has obvious merits, chief of which is that it provides a new arterial thoroughfare that was badly wanted, connecting (by means of the new Lambeth Bridge) Victoria with a neglected part of South London—an area in which prodigious developments may be anticipated.

As previously stated, taking the River Embankment, Victoria Station, and Vauxhall Bridge Road, we have roughly an equilateral triangle. Major Pawley's scheme is to create a new avenue from a point where Lambeth Bridge joins the Embankment on the Westminster side to Victoria Station. This roadway is to become a main arterial roadway, and is planned at 120 feet wide. Thus a new and shorter route is opened up to traffic proceeding from Victoria Station to London Bridge via the new Lambeth Bridge which will considerably relieve the tremendous congestion of traffic along the present roadway.—Yours, &c.

DAVID OSPALAK.

25 Victoria Street, S.W. 1.
August 16, 1921.

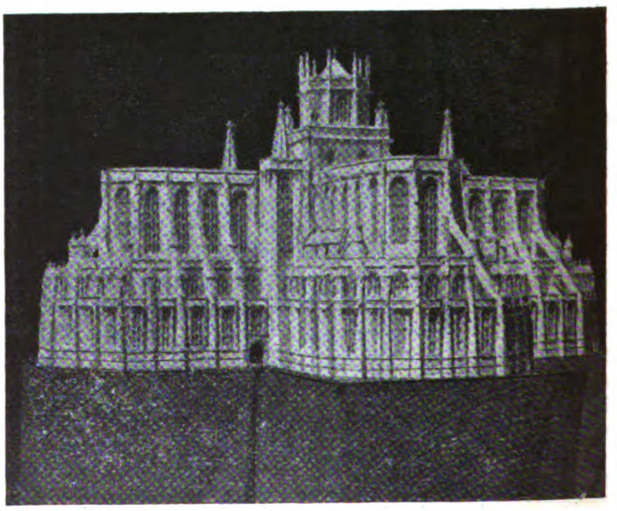
WE give in the opposite column an extraordinary letter we have received from a Mr. Ospalak. Below will be found some brief comments of our own thereon. For purposes of convenience we have numbered the paragraphs of the letter. We also give the illustrations mentioned as we think they may help to convince our readers that architecture will hardly benefit by Major Pawley's efforts.

1. We feel that the river front we have at Westminster and Millbank, poor as it undoubtedly is now, is preferable to that dreamed of by the designer.

2. The photograph of the model given is based on Henry VII.'s Chapel repeated four times, but hardly improved. To this is added a very poorly designed central feature surrounded by four unpleasant towers. The whole conception is wanting in dignity and distinction, and, as we have said, the equality of the arms of the cross suggests a building devoted to four faiths, no one of which is to be given prominence over the other. How a model can be "the finest bit of Gothic carving in the country" is not explained. Is Mr. Ospalak a sufficient authority to pronounce this curious production as without a peer in the ancient or modern world?

3. We quite agree that the district chosen for the setting of Major Pawley's schemes needs replanning and developing, but we do not like the proposals made, or think that so important a subject should be dealt with in the manner indicated. If the subject is to be dealt with in the near future it is to be hoped that it will not be solely left to speculators in sites in commercial schemes to remodel a great section of central London at their discretion, but that the subject will be dealt with by the public authorities concerned and that they will obtain the best professional advice possible. After they have done so building speculators and building finance may come in to deal with the sites determined on under the limitation on some general lines laid down as being likely to ensure and preserve the architectural amenities of a district.

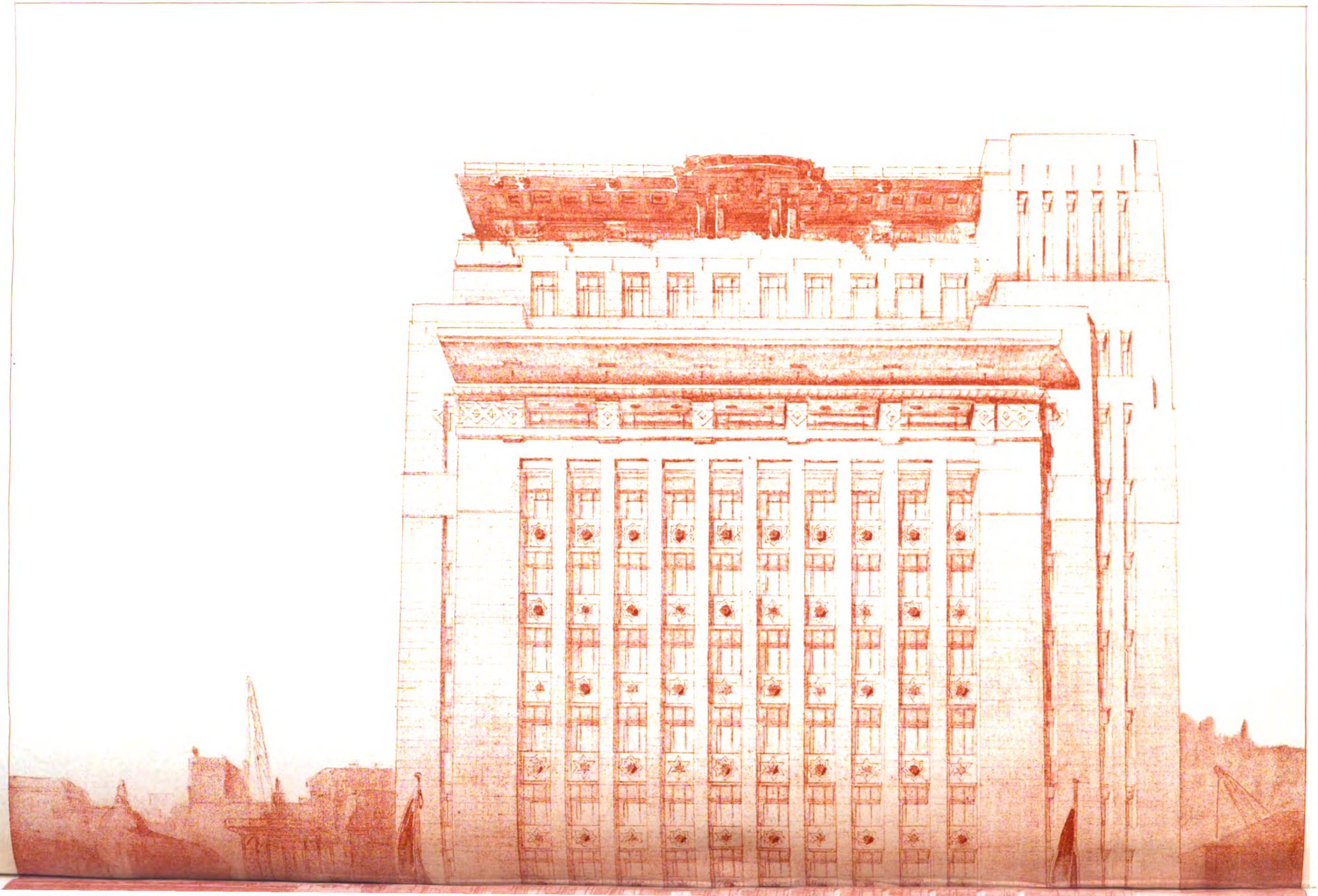
In any case we feel the "Shrine" may be dismissed as being unworthy of its object and quite outside the scope of practicability.



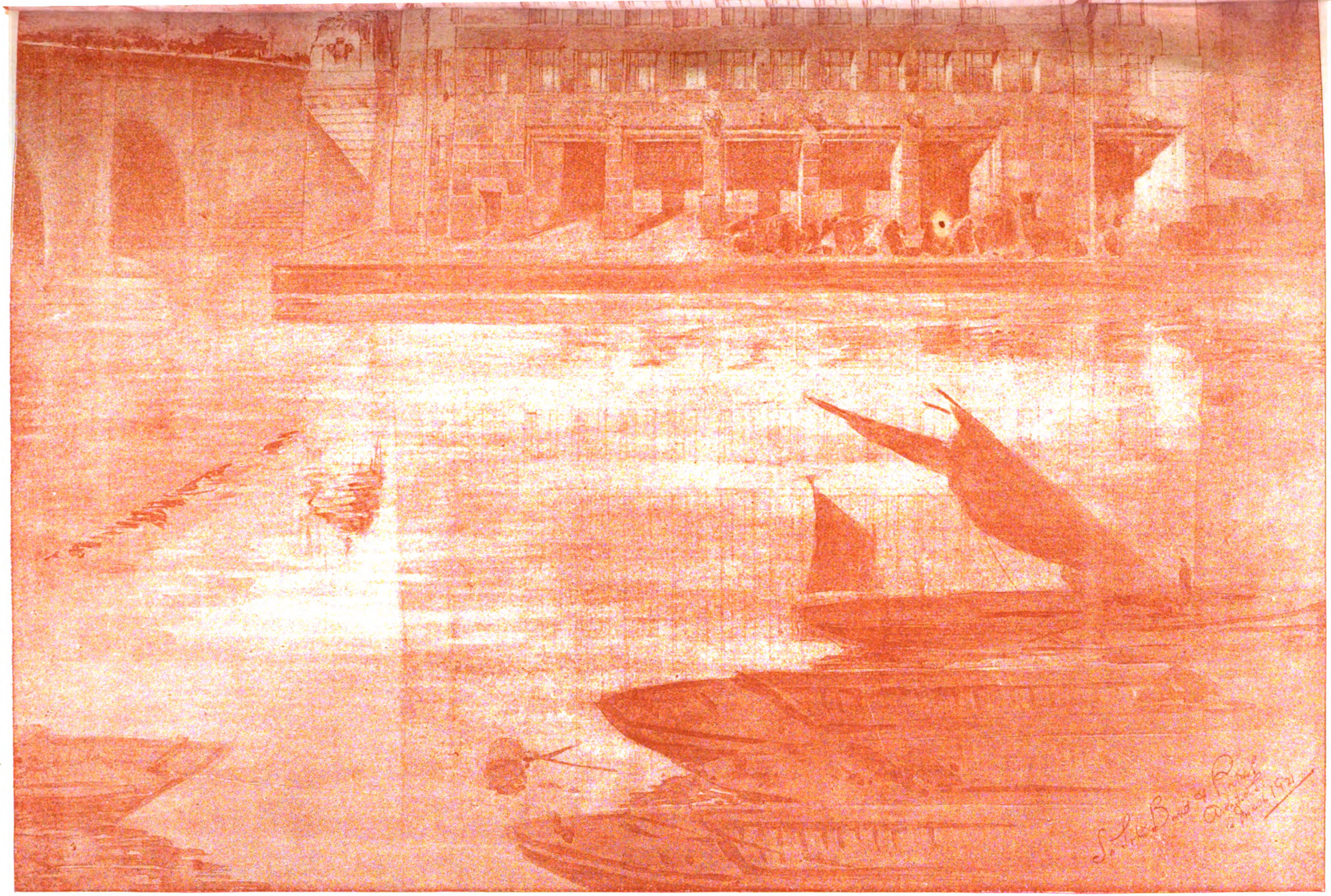
MAJOR PAWLEY'S EMPIRE WAR MEMORIAL SHRINE.

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ADELAIDE HOUSE, LONDON BRIDGE.

SIR JOHN BURNET, A.R.A., & PARTNERS, ARCHITECTS

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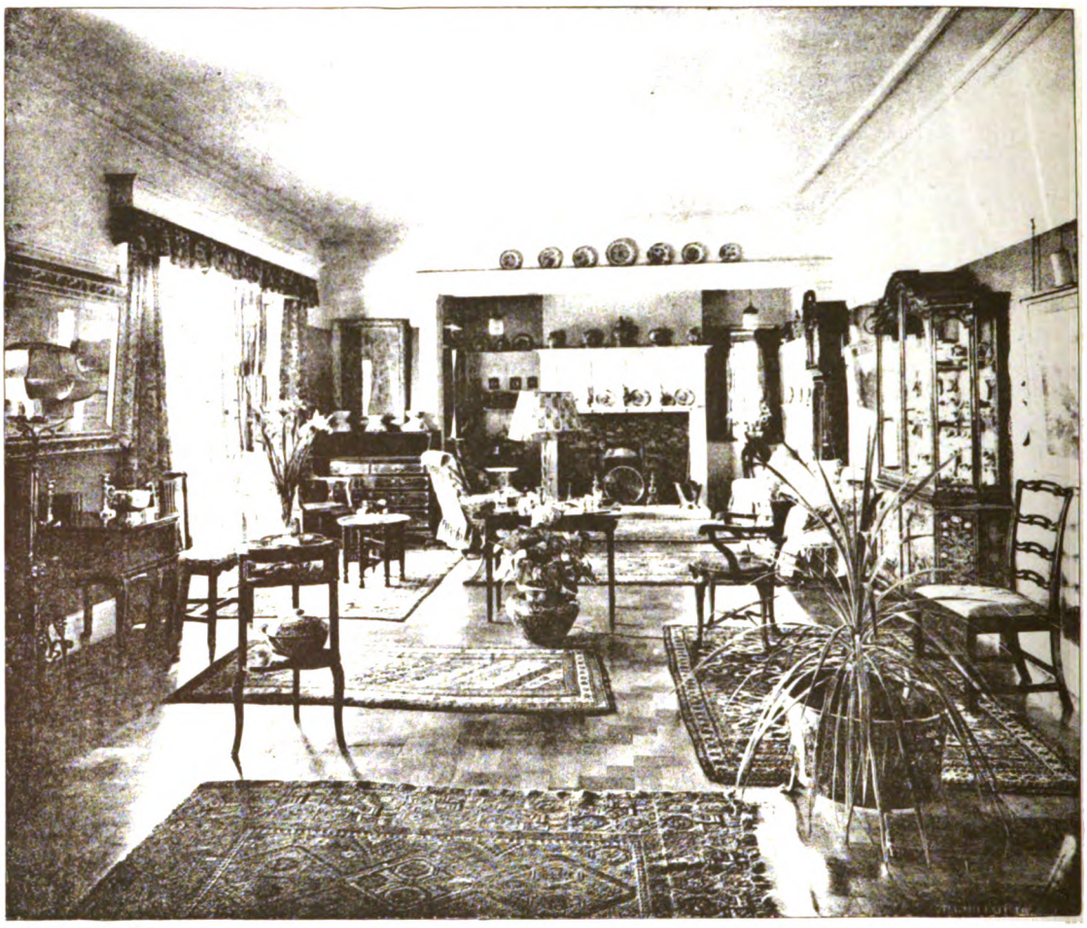
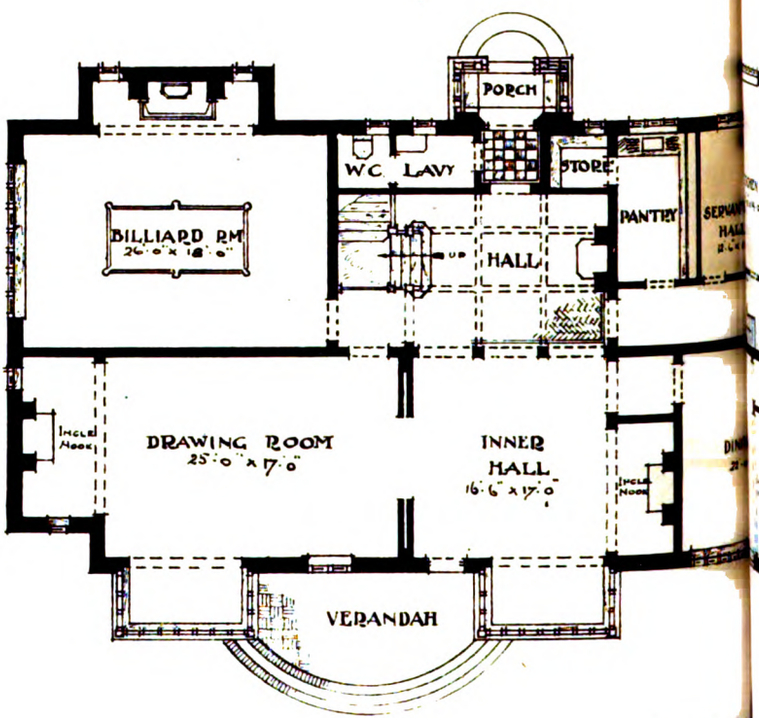


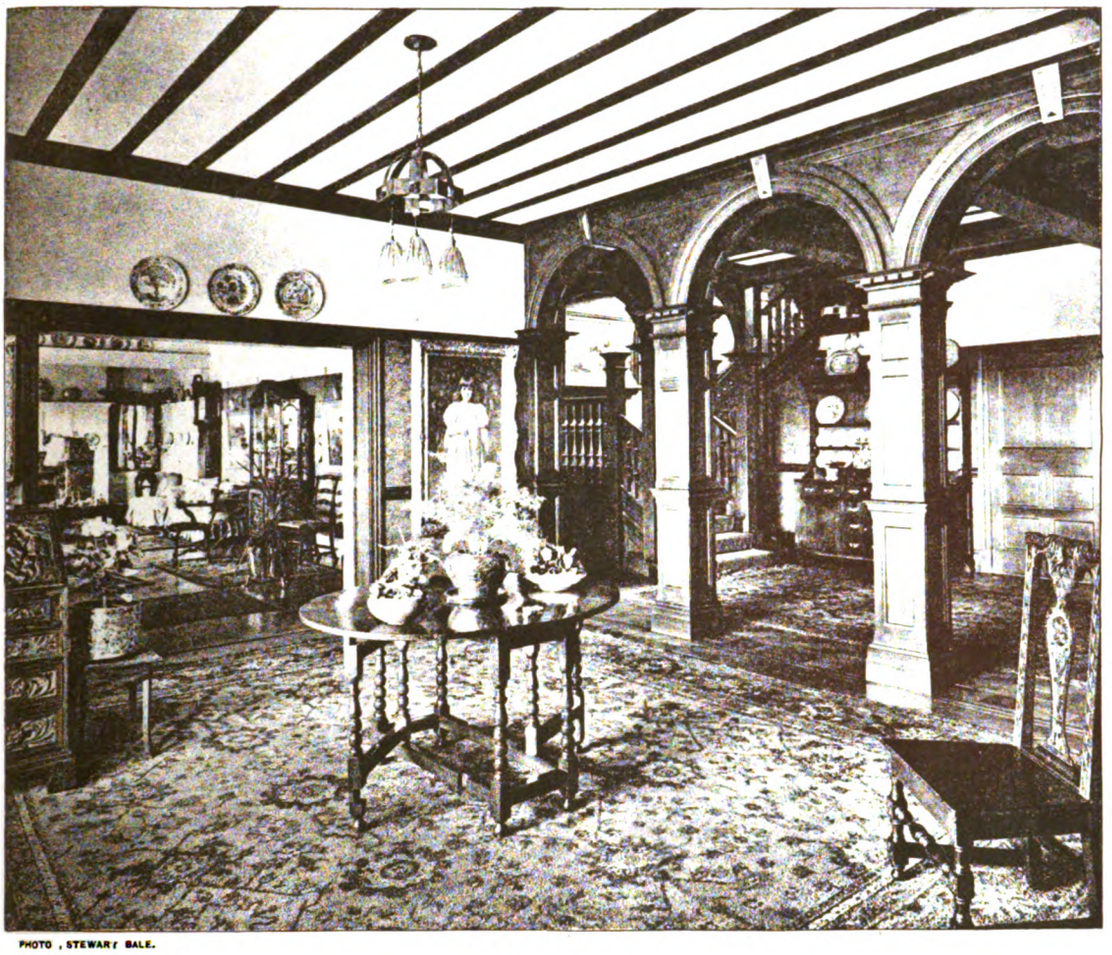
PHOTO . STEWART PALE

LEA CROFT, NOCTORUM, CH
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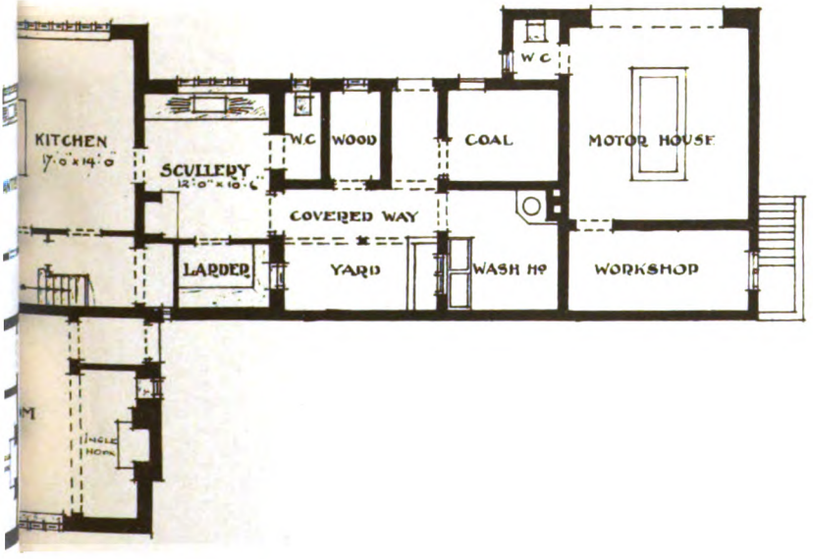
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PHOTO, STEWART BALE.

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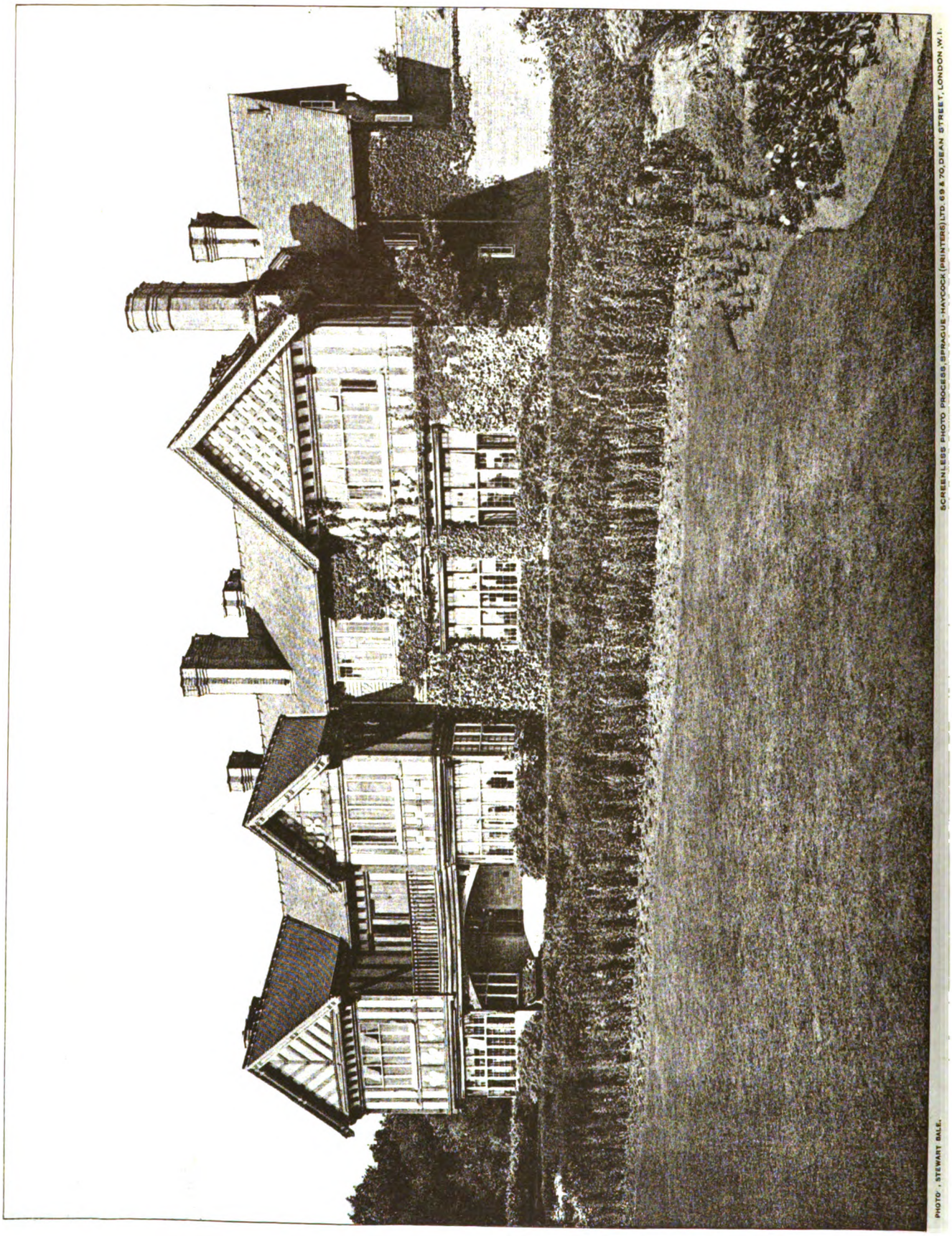
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64 RODNEY ST,
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The White Lead Controversy.

We are glad to give the following moderately expressed answer to the supporters of white lead prohibition and the reasons for believing that comparatively simple and easily applied regulations are all that is desirable in the interests of the community. As we have said, statistics can be twisted, suppressed, and arranged so as to prove almost anything, and this, we believe, has been the course adopted by some of the supporters of prohibition. We have instances in point in the mass of literature with which anti-vaccinationists buttress up their case, and in the tactics of teetotallers and drink prohibitionists. The methods in each case are similar. A number of exceptional cases are described and a theory built up on their bases; the mass of evidence which alone should form the basis for stringent legislation being carefully omitted. Jenner's great discovery has reduced small-pox outbreaks in this and other countries to very small limits, while Germany, by insisting on compulsory re-vaccination, has still further eliminated it, so that doctors have been sent there to study small-pox, as it has become practically unknown in Germany.

But the facts which should dispose of opposition and the progressive decline of drunkenness here, and its still smaller extent in many foreign countries, are no arguments with those who build up cases on an insecure scaffolding of isolated cases, and who would dogmatise to the world like fanatics. Without adding any special criticism to the notes we give below, which speak for themselves, we would suggest that there are analogies between the white lead crusade and other "causes" we mention, and we would suggest to our readers that great caution should be exercised before consenting to any programme which involves the abolition of individual liberty.

Summary of the London Chamber of Commerce's case against prohibition:—

WHITE LEAD IN PAINTING.

Case against Prohibition.

One of the questions to be discussed at the International Labour Conference which meets at Geneva on October 25 is "The Prohibition of the use of White Lead in Painting."

In preparation for the Conference it was the duty of the International Labour Office to collect the most relevant and up-to-date information, to summarise it and set it out impartially, and to indicate the various alternative methods of dealing with the problem. The duty of a fair presentation of the facts and arguments for and against prohibition was, obviously, the more cogent because not a few of the Governments and of the representatives at Geneva will have had no previous knowledge of this particular subject, and are therefore likely to be guided exclusively by any publication purporting to be official.

Instead of adopting this course, however, the International Labour Office issued to the States that will take part in the Conference a memorandum and questionnaire which, it is alleged, is undisguisedly a plea for prohibition. Of this document Lord Askwith has affirmed that it bears "all the marks of haste and ignorance," and "might be well used as an advertising propaganda of a rival pigment."

Perhaps the most striking example of the partisan character of the document, it is urged, is the assumption in the first item of the questionnaire—"In view of the fact that it is now technically possible to replace white lead in painting by efficient substitutes." It is right that the facts bearing on this phase of the question should be before the various Governments when considering their attitude, but it is indefensible that they should be invited to consider the matter upon this question-begging statement of a most controversial matter.

The London Chamber of Commerce has now issued a statement of the case against prohibition, the broad outline only of which is appended. Valuable statistical and other appendices have been omitted for reasons of space.

1. The Statistics of Lead Poisoning do not Warrant Prohibition.

It is known that, owing to the difficulty of diagnosis of lead poisoning without special experience, very many cases are wrongly attributed to lead poisoning. Thus, tests made by the objective basophilic granulation method confirmed only 38 per cent. of the cases ascribed to lead poisoning by subjective clinical diagnosis. The tendency to attribute to lead poisoning all possible symptoms in a worker who is known or believed to have had anything to do with lead is influenced by the operation of the Workmen's Compensation Act—"If the individual has been a lead-worker, it is easy, but frequently erroneous, to conclude the symptoms owe their origin to the worker's occupation." (Legge and Goadby, "Lead Poisoning and Lead Absorption," p. 177.) Even so, the English Departmental Committee which considered the question in 1911 stated that "the rates of death and attacks due to lead poisoning among house-painters are thus comparatively small." The general health of painters in England is known to compare favourably with that of other occupations. Thus a comparison of the painters' group (1,851 persons) with a general group (32,033 persons), both of the Hearts of Oak Benefit Society, for one year shows the following results:—

	Percentage claiming Benefit	No. of days' Sickness per Member at risk
General group	18.0	... 5.8
Painters' group	11.1	... 4.1

There were only one case of sickness ascribed to plumbism, and three cases to colic, among the painters' group.

As to death-rates, those for the painters were, at the time of the last census for which figures are available (1901), lower at every age-period than those of the group "Occupied Males of Industrial Districts."

The death-rates are, indeed, lower than in many occupations not usually considered specially dangerous. Mr. J. H. Schooling, the well-known statistician, has compared the painter's risk with that of the other occupations as shown in the Registrar-General's Report for 1908 (Cd. 2619), and has stated that the figures show that the mortality among painters "is in no way excessive or abnormal: it has been decreasing as rapidly, or more rapidly, than the mortality of England and Wales, and there is a very large number of most varied occupations, many of which are believed to be ordinarily healthy, in which the mortality exceeds that of painters." While the matter is one which requires the most careful consideration, there is, therefore, reason to believe that the risk of paint poisoning among painters in England is not more than an ordinary industrial risk.

II. There is no Effective All-Round Substitute for White Lead in Painting.

Conditions of space make it impossible to set out the technical reasons for the superiority of white lead paints. Essentially it is due to its greater durability and hiding power, and consequent economy, especially for outside use. The best practical proof of its superiority is the fact that, at any rate within the British Empire, the master painter prefers to use white lead. It is to his interest to turn out good work, and if substitutes had the advantages claimed for them by advertisement and in the pages of the memorandum of the International Labour Office they would have long ago superseded white lead upon their merits. Buildings which during the war were painted with substitutes, owing to the shortage of white lead, are now in a deplorable condition, because the substitutes have failed to protect, and have, indeed, left the surface in such a condition that it is difficult to put on a new protective covering.

III. The Prohibition of White Lead would not Remove all the Chief Causes of a Painter's Sickness.

If the risks incident to the painter's occupation are to be dealt with effectively they must be viewed as a whole, and all the dangers of the use of paint must be studied as to extent, cause, and remedies. (*a*) There is now a great deal of evidence to show that a great deal of painter's poisoning is wrongly attributed to lead, and is due to the volatile thinners used in paints. The poisonous properties of turpentine, benzol, methyl-alcohol, &c., which are used as volatile thinners with most paints, whether with a base of lead or of zinc or other, are now well known. To the vapours given off by them immediately upon the application of the paint, painters are continually exposed. This is believed to be the reason for the prevalence of kidney diseases, and especially Bright's disease, and for the frequency of gout among painters; workers in white lead factories, who are more directly exposed to the dangers of lead, do not commonly suffer from kidney diseases or from gout. (*b*) As to poison from the pigment, the tendency of modern research is to show that poisoning arises from the use of compounds of heavy metals, whether lead or zinc or other. Modern opinion regards the source of the danger as being, primarily, the inhalation of dust, and, secondarily, paint carried to the mouth my paint-soiled hands, &c., and so absorbed by the digestive canal. The primary importance of dust has been emphasised by nearly all the recent Governmental inquiries—Austrian, Belgian, Geneva, German. Dr. Legge, H.M. Medical Inspector of Factories, in his

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Report for 1918, summarising the experience of the years of the war, states: "On the practical side little more is to be learned as to how lead poisoning is caused, and it can be taken as axiomatic that all risk lies in inhalation of dust or fumes. These removed or prevented, there would be no lead poisoning." This view is strikingly confirmed by the rapid and continuous decrease of cases of lead poisoning in English white lead factories and in the potteries, due to the introduction of regulations to prevent the inhalation of lead dust—*i.e.* in white lead factories a fall from 399 (1899) to 19 (1919), a decrease of 97½ per cent.; and in the potteries from 200 (1900) to 21 (1919), a decrease of 90 per cent.

So far as the danger of poisoning arising from the pigment, whether from dust or from paint-soiled hands, it can be effectively avoided by simple regulations. One inquiry after another has found that the principal causes of dust are the processes of dry rubbing down and dry scraping of paint; these can be replaced by processes of wet rubbing down. Another source of dust, namely, the drying of paint splashes on overalls, can be avoided by the regular washing of them. The danger arising from carrying paint to the mouth by paint-soiled hands can be met by instruction of the painters as to the risks of poisoning and the necessity of proper cleanliness.

IV.—Prohibition would be very Costly and would be difficult to Enforce and of Doubtful Effect.

(*a*) *The Cost to the Community of Substitutes.*—The number of structures, machines, and implements which require to be painted, if only for protection, show how large an item of public and private expenditure comes under the heading of "Painting," and how important a consideration is the comparative cost of the use of pigments. The following are some of the facts which cause the use of zinc oxide and leadless paints to be relatively far more costly than that of white lead, it being always borne in mind that labour represents about four-fifths of the total cost: (1) Their inferior "hiding" power necessitates more coats, and proportionately more labour; (2) more coats means a larger quantity of paint; (3) their lesser durability necessitates more frequent repainting; (4) repainting is more difficult on surfaces previously painted with substitutes; (5) nothing works so easily under the brush as white lead.

The only seriously suggested substitutes are zinc products; as these are practically foreign monopolies it is not possible to estimate the prices to which they would rise if white lead were prohibited.

(*b*) *Prohibition would have a Disastrous Effect on Home and Imperial Industries.*—(1) *The White Lead Industry.*—Since 85 per cent. of white lead is used for paint, prohibition would extinguish the white lead industry in Great Britain, and its workers would be thrown out of employment. In the event of an international prohibition there would, of course, be no outlet by export; nor would the presence of 4 or 5 per cent. of lead in the plumbous zinc white advocated by the memorandum of the International Labour Office materially affect the position. It would not be possible to adapt white lead factories to the manufacture of zinc oxide and other substitutes. White lead manufacturers are large users of certain necessities, such as earthenware pots, timber, spent tan, and acetic acid. Their going out of business would adversely affect employment in these industries.

(2) *Imperial Lead Mines.*—The world's annual production of metallic lead is about 1,100,000 tons, of which 210,000 to 220,000 tons, or 20 per cent., are used for conversion into white lead. The great bulk of white lead is used for painting. As zinc oxide is not equal in durability or hiding power to white lead, some 250,000 tons of spelter (crude zinc), or its equivalent in ore, would be required in substitution for the lead used to make white lead.

Deposits of zinc blende (ZnS) pure and simple exist only in relatively small quantities and in limited areas, and these deposits do not occur in the British Empire. By far the greater part of the blendes used in the making of spelter is produced by working deposits of mixed ores, namely, silver-bearing lead and zinc ores. Such deposits exist in many parts of the world, and especially in Australia and Burma; the Broken Hill mine in New South Wales produces (150,000 tons of pig lead and zinc blendes (representing approximately 100,000 tons of spelter) yearly, lead ores being the primary product and zinc ores a by-product.

Prohibition, by reducing the demand by nearly 20 per cent., would inevitably cause a great fall in the price of lead, and, it is stated, would have the effect of closing down the Broken Hill and other mines.

As the zinc industry never has prospered in the United Kingdom and the British Empire, the majority of the spelter works and zinc oxide works in the United Kingdom being at present closed, while Belgium and Germany continue to work their factories and smelters and are supplying the British market, the ruinous consequence of putting the British paint industry at the mercy of foreign producers of zinc is but too apparent.

(*c*) If white lead were prohibited and there were no regulations of painting, the painter would still be exposed to the danger of poisoning from turpentine or other volatile thinners, from zinc paints (zinc oxide being poisonous, though to a less degree than white lead), from lead in the use of plumbous zinc oxide, the danger in this case being the worse owing to the worker's false sense of security.

(*d*) If, as proposed, there be permitted the use of plumbous zinc oxide (*i.e.*, zinc oxide made by the "direct" process, and therefore containing a small percentage of lead impurity), some system of inspection will be necessary for the enforcement of the prohibition of white lead. As it is easy to cover up under-coats of white lead by a finishing coat of zinc oxide, it would be difficult to prevent the surreptitious use of white lead. This surreptitious use would be more dangerous to the health of the painter than the known and regulated use. This point was dealt with in the Report of the Geneva Commission, as follows:—

"It is said that regulations would necessitate a policeman for every job or for every worker. Would it not be necessary to have far more policemen and inspectors, chemists and experts, to ascertain what there is in the paint-pots containing countless mixtures of innumerable products of zinc mixed with lead? Is every coloured pigment containing any proportion of lead to be prohibited? If so, the law would be made of no effect, as will inevitably be the case in France." ("La Ceruse," p. 74.)

V.—Regulations alone would effectively deal with the Cause of Paint Poisoning among Painters.

A.—Nature of Regulations for Painting.—(*a*) *Regulations to avoid Dust.*—Regulations must primarily be directed to the danger of dust, and in particular to dry rubbing down and dry scraping. These should be prohibited.

(*b*) *Regulations to ensure Cleanliness.*—Next to dust, the chief source of danger of metallic poisoning arises from paint on unwashed hands and face, which may be conveyed into the mouth, especially in the handling of food or tobacco. This danger can be met by provision of the means of cleanliness and enforcement of their use. These may be summarised as follows: (1) Provision of washing appliances (water, towels, soap); (2) use of overalls and the washing of them; (3) ventilation.

(*c*) *General Regulations.*—(1) Periodical medical inspection is of special importance, because paint poisoning is slow and cumulative in its effects; (2) printed advice explaining the dangers of the industry, with suggestions as to their avoidance, is of importance, because the average painter is frequently found to be indifferent to the dangers incidental to his calling.

B. The Machinery of Regulations.—It is not necessary to elaborate any specific scheme. The machinery of enforcement is an ordinary administrative matter for each country concerned, and does not present exceptional difficulties. It is said that regulations would be difficult to enforce because the painting industry is one in which men are engaged on many separate jobs for short periods, and often in quite small numbers. It is admitted that it is not so easy to enforce regulations in such cases as in a factory industry, but effective enforcement is nevertheless quite practicable. It would be quite unnecessary that every job should be inspected; surprise visits and the rigid infliction of penalties would soon have the desired effect. Regulations for the purity of milk are more difficult to enforce than regulations for painting, although of more vital importance, yet a fairly high standard is maintained without daily visits. The observance of a law does not depend on any certainty that a breach will be detected, but upon the knowledge that if discovered it will be punished. It is suggested that the operative Painters' Trades Unions might usefully co-operate in seeing that regulations are enforced, *e.g.* by officially giving information of breaches.

Governmental Investigation in European Countries.—The subject of lead poisoning has been recently investigated by Commissions of Inquiry in a number of European countries—Austria, Belgium, France, Geneva (State),

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Germany, Great Britain, Switzerland. With the exception of France and Great Britain (for reasons which the *Case against Prohibition* shows to be inadequate), all adopted the policy of regulations, and in particular regulations in respect of lead dust.

Of these investigations that of Geneva was perhaps the most illuminating, and its general conclusions may be usefully quoted:—

1. White lead as used for painting in Geneva does not constitute a social danger necessitating a measure so extreme as prohibition.

2. White lead is a necessity for which zinc oxide is not an all-round substitute.

3. Painting with white lead is not a real danger when simple precautions are taken.

4. Lead dust may be avoided by the use of white lead in the form of paste, i e. ground in oil (long been a practice in Great Britain), and by preventing dry rubbing down and dry pumice-stoning and burning off of old paint."—("La Ceruse," pp. 17-19.)

It has well been said "There is a danger that an ill-considered interference with industry for reasons of hygiene will defeat its own object, and that those very workers whom it is sought to protect, or perhaps an equally important or numerous body of workers, will be deprived of their livelihood. Prohibition of the use of a dangerous article is a mode of dealing with the danger which is, in my view, somewhat childish in its simplicity, and would lead to an almost intolerable interference with the machinery of civilisation if it were applied to all the substances which are of greater danger than white lead."

A former inquiry at Geneva reported that "The danger is not sufficient to necessitate the prohibition of a material the careful use of which does not constitute a social peril. There is an industrial risk, and we do not suppose that it can ever be abolished in painting any more than in any other occupation. At the forge, the slate quarry, the loom, as a fileworker or a dyer, the worker is exposed to risks often more serious. We do not desire by yielding to the quite natural sentiments of those who are concerned for the workers, and demand prohibition, unnecessarily to do the business of certain financial and commercial monopolies and of certain manufacturers of zinc, *who are and who will be the masters of the price of it.*"—("La Ceruse," pp. 64 and 69.)

Correspondence.

The Prohibition of the Use of White Lead.

To the Editor of THE ARCHITECT.

SIR,—Some of the statements made in two articles published in your issue of August 12 are so very inaccurate that I should be glad if you would permit me to correct them.

The first article to which I refer is headed "Rubbing Down of Paint: Can a Perilous Practice be Dispensed With?"

In connection with the proposal to prohibit the use of white lead, which is to come up for consideration at the International Labour Congress, to be held at Geneva, in October next, the writer says, "as regards the rubbing down of old plain paint, at any rate the consensus of opinion amongst practical painters is that pumice-stone and water could entirely supersede dry rubbing down." What an extraordinary statement! Painters always have, and I presume always will, use water with pumice-stone; it would be quite useless without it. Dry rubbing down relates to the use of sandpaper and that only. Such paper may be moistened with turpentine in order to keep down the dust, but to use mineral oil, as the writer of the article recommends, would be fatal. Such an oil does not dry, and it would have to be removed before any painting could be proceeded with.

Having found two such glaring errors, from a practical point of view, one ceases to be surprised at the following extraordinary statement, "Paradoxical as it may appear, the disuse of white lead in paint would almost certainly have the effect of actually increasing the danger of lead poisoning, at least for a considerable period." The reasons advanced for this wild statement are, that as most buildings are painted with lead, poisonous dust would be given off, in cases where dry rubbing was done. How the danger could possibly be increased, the writer alone knows. If the use of white lead is discontinued, in a very few years there will be no lead surfaces to rub down and no irksome regulations as to moistening the sandpaper that need be adhered to. Even when wet rubbing down is done not a little white lead will be found on the floor, and this is dangerous.

The second article is headed "A Paint Feud Revived," and deals with the same subject. It is also so inaccurate and biassed that one has reason to suppose that both articles were written by the same gentleman.

For the sake of brevity I will deal with the misleading statements very shortly. The writer suggests that "Time may have brought its lessons." It most certainly has, but in exactly a contrary sense to that intended. Time has shown that disease and illness, arising from the use of white lead, are very serious matters. Time has given an opportunity for some improvement in the manufacture of non-poisonous white pigments, and time has amply confirmed their excellence both from the point of view of beauty and durability.

Sir Kenneth Goadby may be right or wrong in his assertion that turpentine is responsible for illness among painters, but he surely does not suggest that it can give the operative *lead poisoning*. This point, although so often quoted, has not, I suggest, anything whatever to do with the subject.

The reference to improved hygienic conditions in white-lead factories does not affect the man who applies the paint in the slightest degree. It is noteworthy, too, that at the present time the regulations concerning the manufacture of white lead in this country are about to be rendered much more stringent.

Finally, I should like to reply to the following quotations: "Prohibition of the use of white lead, if Sir Kenneth Goadby and others are to be believed, will not eliminate painters' sickness." *Answer.*—No one ever thought that it would. What it will do, however, is to eliminate painters' illness from *lead poisoning*. It "will increase the cost of painting to property-owners and others." *Answer.*—It will do nothing of the kind! At this writing the best zinc oxide costs £36 a ton. Dry white lead is quoted at £44 15s. a ton. Lithopone is quoted at £28. With regard to the last-named material it is much cheaper than lead for one reason, because it spreads when made into paint, about one-third farther, so that if 100 lb. of white lead covers 400 square yards, lithopone will cover from 500 to 600 square yards.—Yours, &c.,

ARTHUR S. JENNINGS,
Editor of "The Decorator."

365 Birkbeck Bank Chambers, High Holborn, W.C.,
August 26, 1921.

MR. JOHN BENNETT, of Lady Housty, Newton, Swansea, builder and contractor, of the firm of Bennett Bros., Swansea, who died on February 26 last, left estate of the gross value of £14,200, with net personalty £9,186.

A CINEMA, to be known as the Premier Picture House, is to be erected in Lincoln, at the corner of High Street and Portland Street. The new amusement hall is to be erected by Councillor Kitchen, of Grimsby.

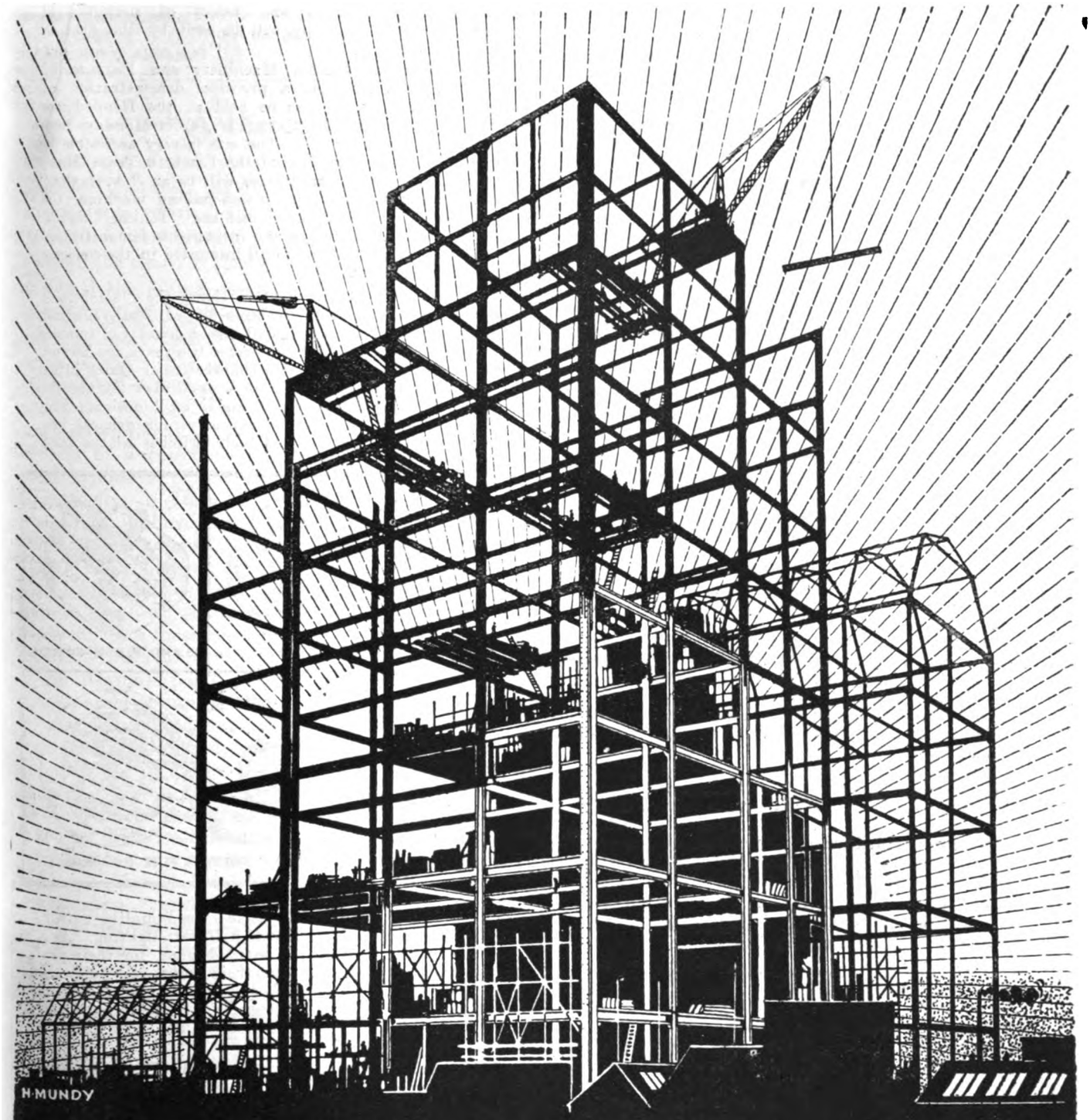
THE Sheffield Grand Theatre is to be pulled down by the new owners, the Grand Picture Houses, Ltd., who propose to erect a picture theatre at an initial cost of £60,000. The site is in the centre of the city.

AT a meeting of the Privy Council, held at Buckingham Palace, the petition of the Institution of Electrical Engineers for a Royal Charter of incorporation was approved, and a Royal Charter has now been granted. The King has also been graciously pleased to intimate his willingness to become patron of the Institution.

THE Cabinet of Northern Ireland announced last week that, subject to the approval of both Houses, the Stormount Estate has been secured for £20,000 as the site for the new Parliament, ministerial buildings, and courts of justice. Until new buildings are available Parliament will meet in the Assembly's College, Belfast. Stormont Castle stands in a beautiful situation on a height on the Co. Down side of the river, and three miles and a-half from the centre of the city. The Castle, for its new purpose, will have to be practically rebuilt. The estate extends to 235 acres.

AN Association of Steeplejacks, the first of its kind in the world, is to be formed by Mr. C. L. Ager, of Mansfield, who a year ago opened a school for the training of steeplejacks. One of the primary objects is to protect those who employ men for chimney-stack repairs and similar work against unskilled and inexperienced labour. Only those able completely to prove that they are trained men will be allowed membership of the Association, and architects, surveyors, and others concerned will be circulated with a list ensuring that they will be able to secure fully qualified steeplejack workers.

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Royal College of Art.

For many years a class in etching and engraving has been conducted at the Royal College of Art under the distinguished and successful direction of Sir Frank Short, R.A. Hitherto the class has been open for students on two days in the week. It has now been decided to extend the range of the processes of reproduction in relation to which instruction can be obtained at the College and to open the class on additional days. A school of engraving will thus be provided at the Royal College of Art parallel to the existing schools of architecture, design, painting, and sculpture, in which full-time students will be able to specialise for the greater part of the time, devoting the remainder of their time to those branches of artistic study which are prescribed in common for all students. External students may still be admitted, so far as there is room, for part-time study in the school.

Arrangements will be made for the issue of certificates in each of the following methods: Etching, aquatint, mezzotint, line engraving, wood engraving, and lithography, and a student obtaining all six certificates will be entitled to the diploma in engraving.

Sir Frank Short, R.A., will continue to be the Professor, and Mr. Thomas Derrick, A.R.C.A., has been appointed to give instruction in lithography, wood engraving, and etching.

As an outcome of the endeavour which has been made by the Principal of the College (Professor W. Rothenstein, M.A.), in consultation with the Federation of British Industries, to establish closer relations with artistic industries, it has now been arranged that a limited number of designers or craftsmen can be received for short courses, which will comprise instruction from the staff of the college and study under direction in the Victoria and Albert Museum. These arrangements will, for the present, be open only to those students who are sent by their employers and continue to receive remuneration during attendance at the College. As an experimental arrangement the students will be admitted at the special fee of two guineas for each month, or part of a month, in their period of study.

In view of the general revision of fees in colleges of a like standing it has now been decided that the fee for a year of full-time instruction at the College for all new full-time students shall be thirty guineas instead of £25 as hitherto. So far as there is room, part-time students will, as before, be admitted to some of the craft classes of the College; a fee of three guineas per term for each day of attendance per week will be charged to every such student next session.

A revised prospectus of the College containing particulars of these new developments will shortly be issued.

General.

We extend sincere sympathy to Mr. William Woodward, F.R.I.B.A., F.S.I., on the death of his wife at Hampstead on August 26, in her seventy-second year. The funeral took place on Tuesday last at Kensal Green.

The Doncaster Rural District Council have received the approval of the Ministry of Health for their sewerage and water-supply schemes for the parishes of Barnby Dun and Kirk Sandall, at a cost of £39,000 and £4,200 respectively. The schemes have become necessary through the establishment of Messrs. Pilkington's glass works.

The Ministry of Transport, in a communication to Newport (Mon.) Development Association, says that while it is impossible to state that the Severn barrage scheme will not be proceeded with at some future date, when financial conditions are more favourable, there is certainly no prospect of the scheme being carried out for some time.

The Hemsworth Rural Building Schemes Committee have accepted, subject to the approval of the Ministry of Health, the tenders of Messrs. Smith Bros. (Burnley), Ltd., for the erection of ninety-four houses at Great Houghton, sixty-eight houses at Grimsthorpe, and sixty-eight houses at Ryhill.

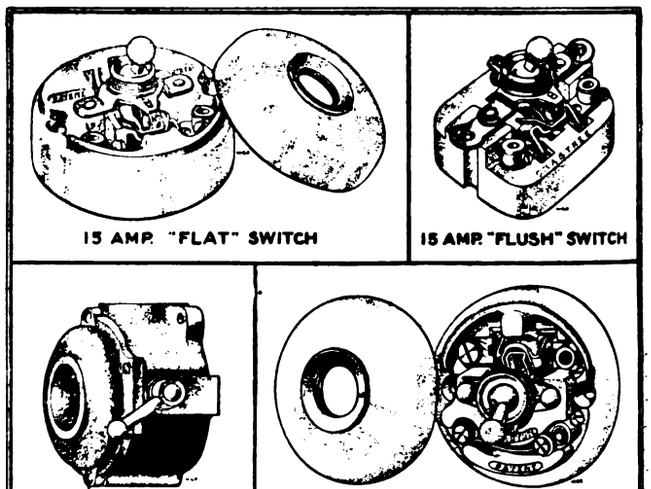
Rugby Urban District Council on Monday accepted the tender of the Unit Construction Company, Wolverhampton and Birmingham, for the erection of thirty-six houses on the Park Estate at £651 for non-parlour type, and £730 for parlour type. It was stated that this tender had been approved by the Director of Contracts, and that the sanction of the Ministry of Health would follow in due course.

Trade Notes.

Fawcett Construction Co., Ld., 65 Victoria Street, Westminster, S.W. 1, have issued a new pamphlet containing full particulars and tables of strengths of "Mon'lithcrete." A copy will be sent by the firm to anyone interested.

The Australia Concrete Machinery and Engineering Co., Ltd., have arranged a practical demonstration of their concrete machinery to be held at the Hippodrome Garage, Gordon Road, Brixton, S.W., from Monday, September 5 to September 10. The site is very accessible by bus or tram, being just behind the Lambeth Town Hall. Among the well-known appliances will be an "Australia" block-making machine, a plain slab-making machine, the "A1" concrete brick machine, and the "Tonkin" mixer. A cordial invitation to attend and inspect this demonstration is extended by the company to all interested in the concrete and allied industries.

The accompanying illustration shows the "Crabtree" switch, as made by J. A. Crabtree & Co., Ltd., Walsall. Gas-filled lamps have accelerated the demand for tumbler switches with a "snap" action. Some two years ago Messrs. Crabtree first placed on the home market their Quick Make and Break switches which have as a particular feature the practically instantaneous "on" and "off" action. Previously such switches were too expensive for general use. Messrs. Crabtree have produced their switches at the same



price as the ordinary "slow make" good-quality switch. The latter are quite unsuitable to half-watt lighting. As a consequence there has been a heavy demand for their products. The company claim that their switch is "built like a watch," and they pass each one through eight distinct inspections during and after assembly. Switches have been mechanically tested three million times and still found to function satisfactorily.

The annual outing in connection with W. G. Tarrant, Ltd., of Byfleet, Surrey, took place on 20th ult., when a special train took a party of more than 800 to Brighton. On arrival the entire party at once proceeded to the Corn Exchange, where a sumptuous breakfast was awaiting them. As the company arrived they were welcomed by Mr. and Mrs. W. G. Tarrant and Mr. R. O. Garrard, Mr. Tarrant (managing director), and Mr. Garrard (director) having arrived early on the scene in order to see that everything was in readiness, and throughout the day both these gentlemen were assiduous in looking after the welfare of the visitors. After breakfast Mr. Tarrant proposed the loyal toast, remarking that it was the twenty-first anniversary of the establishment of the firm of W. G. Tarrant, Ltd., and it was also the anniversary of his silver wedding. Twenty-one years ago the firm consisted of himself and Sam Mingo, and their weekly wages were £1 and 15s respectively. To-day there were 1,800 men working for them in England, with a wage bill of £7,500 per week, and over 200 men in France drawing 50,000 francs. Subsequently Mr. and Mrs. Tarrant were presented by the staff and employees with a silver salver and a Sheraton barometer. The return journey from Brighton was made at 8.40 p.m. In the words of one of the oldest employees, "it was the best outing in the history of the firm."

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VOL. CVI.—2751. THE ARCHITECT SEPTEMBER 9, 1921.

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"A History of French Architecture, 1661-1774." *

In a couple of well-written volumes, Sir Reginald Blomfield continues his study of French Renaissance architecture, which he had previously traced from its birth. The present work comprises the period between the death of Mazarin and that of Louis XV., and in it the author describes the growth and culmination of that phase of architectural expression which is more typically French than that of any other period. The mediæval architecture of the greater part of Europe was a common vernacular, of which the various nations expressed themselves in terms so similar that they may be described as being dialects of a common language; but, though the same elements of design were used during the Renaissance in Italy, France, and England, the manner in which they were employed was so different as to present the similitudes of different languages, each characteristic of a race and each imbued with different ideals, and, in the case of the architecture of France, forming a logical and conscious expression of a thesis on which generations of French architects worked.

Sir Reginald points out that subsequent to 1774 French architecture became a prey to Revivals, not because it used old forms but because these forms were becoming an end, rather than a means, for the expression of its ideals; but it may be added that the element of logic and thoughtful synthesis is so native to the French that their architects have strayed a shorter distance from the true path than those of other nations, and the great edifice of which Colbert suggested the first sketch has had a lasting and living influence on French art. Sir Reginald says of the great architects of the period under his review: "Consummate masters of technique, they cared nothing for the art of the virtuoso. Architecture was to him a living art, the true companion of a joyous life, never unduly thrusting itself forward, yet always sympathetic, always fully competent for its purpose. It is of this beautiful art that I have endeavoured to give some account, and if I have ventured in criticisms here and there, they in no ways detract from my profound admiration of its great examples."

It has sometimes seemed to us unfortunate that we judge of the works of the Renaissance mainly from great buildings which were the expression of aristocratic and uneconomical want which is alien to the spirit of to-day. Houses built not for primary conditions of utility, but to express the power and splendour of a very limited class of the aristocracy, and the absolute power and dominance of Royalty have a feeble appeal to the modern imagination, but were not more alien to the spirit of the age which produced them than the great religious buildings which preceded them, which we probably more falsely assume were the spontaneous expression of the faith of a people. In any case, the impartial historian of art will give both equal attention and will conclude that the later phases have been no smaller factors than their predecessors in the alchemy of change, on the basis of which modern architecture in the best sense must be built. And the smaller buildings of France, often unrecorded and little known, prove to every investigator how truly national was the expression of the great works on which they were founded and which they echo. The smaller buildings of modern France often show us, by their scale and ordered setting, that the great buildings of the French Renaissance were but the more complete and unfettered expression of a truly national art. We should in a sentence describe the difference between the Renaissance of France and Italy as the more complete subordination of classical detail as instruments of expression of purposes or wants of design in a building, whereas in the best Italian work we often feel that the building itself is subordinated to the forms used; and this, to our mind, is a reason why French architecture as a whole is a more fruitful field for the study of modern architects than that of Italy.

Sir Reginald has rightly illustrated his volumes chiefly with reproductions from the voluminous literature of the subject, supplemented by a number of pencil drawings of his own, and has made an exhaustive study of French works, including the "Comptes des Bâtiments du Roi," in which are given every item of the Royal expenditure on buildings and gardens. He gives a lucid and clear account of the manner in which the master builder was replaced by the professional architect, and the unavailing struggles of the *maîtres jurés* against the Academy and of the foundation of that body, and the inner struggles and jealousies which often retarded its efforts. Of Louis XIV. and Colbert he says: "That Monarch determined to be his own Prime Minister, and he found in Colbert the right instrument for his purpose, a man of inflexible determination, tremendously in earnest, austere in character yet unscrupulous as to means, morally and intellectually as hard as steel. In addition, he possessed a genius for organisation almost unparalleled in history." As an example of the detail he went into, the duties of Lefebre as contrôleur general triennal of Versailles are enumerated: "He was to see that the little park was kept in good order; check the labour sheets of the contractors Colinot and Marin. He was to visit the Trianon often and see that Le Bouteux had flowers for the King in winter, keep the requisite number of men at work, and was to send Colbert every week a report of the flowers. He was to visit the building works then going on at Versailles, and to report on them to Colbert; look at the windmills, provide all necessary materials, and see that the mills were at work whenever there

* "A History of French Architecture from 1661 to 1774." Two vols. By Sir Reginald Blomfield, R.A., M.A., F.S.A. G. Bell & Sons, Ltd. £4 4s. net.

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was a wind; see that the fountains were in good order, finish the aqueduct, and put a grille in it to prevent the carp escaping." He was also to take off a foot and a-half of loam around the basin of Bacchus and replace it with sand. That such details were a concern to the first Minister of France is in itself not only an indication of Colbert's power of organising detail, but a proof of the reality and vividness of what we are accustomed to regard as the aristocratic stage scenery of France in past times.

The great architects of the age of Louis XIV. are reviewed in turn with discriminating criticism and copious contemporary data. The great conflict between Bernini, who arrived in France like a king and was accorded almost royal honours, and Perrault, who finally displaced him, marked the separation of French from Italian art, and also formed a striking commentary on the more marked practical qualities which appealed to the French in matters of architecture. The architectural treatment of masses, their fenestration and roofing, were destined to play a much greater part in French architecture than was the academic treatment of detail, and form a striking contrast to the more classical academic qualities of Italian architecture. In Jules Hardouin Mansart, the extent and number of whose works exceed those of any of his contemporaries, Sir Reginald gives a vivid picture of a successful adventurer: "Jules Hardouin called himself his (François Mansart's) nephew—and on the death of François Mansart in 1666 he took on the name of Mansart 'pour se faire connaître et se donner du relief'." By degrees he managed to attract the attention of the King "et profiter si bien de.sa familiarité passée des seigneurs au volets et aux maçons" that the King attributed to him the ability of his grand uncle, and ultimately promoted him to one of the greatest offices of the State. He "was a young man of agreeable presence and plausible address, and by consulting the Academy, deferring to their opinion, and generally playing up to them till he felt sure of his position, he very soon established himself in that exclusive circle. Colbert had failed to keep the Court at Paris, the works at the Louvre were abandoned, Claude Perrault, the successful favourite, who had carried everything before him ten years before, was forgotten; the Academicians were more or less ignored. Henceforth Mansart and his clique were to have it all their own way, and the fine independence which had distinguished the architecture of Lemercier and François Mansart was now to disappear from French architecture, finally vanquished by officialism on the one hand and the disastrous tyranny of Court fashion on the other. Not the least disastrous of the mistakes of Louis XIV. was his whole-hearted acceptance of this clever adventurer who, as an artist, lacked both scholarship and conviction, and as a man was destitute of any sense of chivalry and honour."

The Royal prodigality of building under Louis XIV. left the country exhausted and impoverished, and paved the way for the reaction under Louis XV., when the greater attention paid to comfort and convenience is shown in many ingenious plans of smaller scale, and when the lavish and graceful treatment of comparatively small buildings was balanced by simpler and more reasonable external treatment. The work of the Gabriels of Héré, the provincial architects whose masterpieces have enriched Nancy, are typical of the best of this era; but Sir Reginald reminds us that "the ideal that Colbert had aimed at was realised. French art was recognised as supreme throughout Europe. Its incomparable craftsmanship, and the vast material resources at its disposal, had finally disposed of the claims of Italian art—at the end of the seventeenth century a shabby version of a once magnificent tradition; and, whereas in the sixteenth century all the kings and princes who could afford it tried to outbid each other in securing the services of Italian artists, it was France who sent out her artists and craftsmen to Russia, Germany, Denmark, Sweden, and Spain. They even smuggled them over to England." The greatest merit of this very remarkable work is the clear and careful analysis of the merits and faults of the past and its careful appraisement of the factors which now, as in the past, make for the production of great architecture.

Illustrations.

GARDEN, CHERKELEY, LEATHERHEAD. Robert Atkinson, Architect.

DESIGNS FOR THE RECONSTRUCTION OF PINON. Charles Abella, Architect.

ARCHITECTURAL ASSOCIATION STUDENTS' DRAWINGS: AN ITALIAN RENAISSANCE COMPOSITION.

Notes and Comments.

French Domestic Work.

We are glad to give an illustration which shows the modern French architect's idea of a village scheme. The illustration of M. Abella's work is that of a gifted French architect who has won distinction. Modern French design seldom appears to insular eyes to be suited for the country, as it always has an element which suggests the city or at least its immediate suburbs. We suppose, on the other hand, that our country work which usually more closely follows traditional lines must seem to the French an effort of antiquarianism unsuited for the times in which we live. But the smaller French buildings though carried out with taste and skill do, nevertheless, suggest the *villa ornée* rather than the cottage, and as such hardly command our normal sympathies. The same remarks apply, in a lesser degree, to the work of Scandinavia and of Germany, though both are marked by stronger mediæval feeling.

The Auckland War Memorial Competition.

From New Zealand comes notice of a competition instituted in Auckland for a War Memorial to take the form of an institute and library. We should have to go back to the middle of last century to find conditions so shameless in their effrontery. The proposed scheme is to cost about £170,000 and premiums of £650, £250, and £100 are to be paid to the authors of the first three designs provided that all the terms and conditions of the competition have been complied with, but the Committee do not bind themselves to employ the successful competitor, and should they do so it will be "on conditions to be arranged." The decision of the Council and Committee is to be final as to this and all other matters. The Committee do not bind themselves to make any award, in fact they bind themselves to nothing. It is to be hoped that no competitor will be found who is willing to swallow the insult which this precious and unique body have offered

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to a profession. Only the very young, or those completely wanting in ordinary intelligence or the close relations of members of the Council or Committee could be exonerated from foolishness if they competed on such terms, and the very foolish people who subscribe the money for the memorial may be assured that they are "riding for a fall."

The National Housing and Town Planning Council.

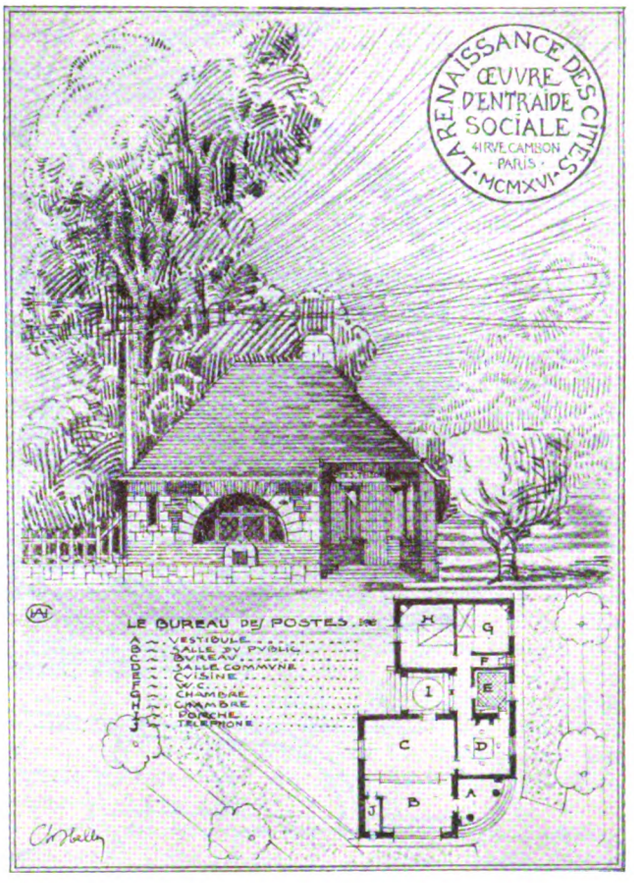
MR. ALDRIDGE and his friends having so long enjoyed the lime-light which is directed on the heads of those who engage in a popular crusade are spending both time and energy in encouraging the dying embers to blaze up again. We have a report from them reviewing the present housing situation, suggesting action which should be taken by housing committees and local authorities, and the organisation on non-party lines of a national campaign for an adequate housing and town planning policy. The whole report is plentifully furnished with quotations from the numerous foolish and ill-advised statements which have been made from time to time by politicians. We would suggest to them that as the high cost of housing is one of the chief causes that has brought it to a standstill, and as the abandonment of an ill-considered policy has already brought prices down, that the Council should leave well alone. Might we also suggest that as the Premier has met De Valera it would be quite in order for the Council despite its past attitude to arrange a conference with representatives of the speculating builders who, after all, provided for past wants, and may possibly in the time to come provide for future ones. Such a policy though not heroic would be better than crying over spilt milk, and the crusade which Mr. Aldridge wishes to lead will end in failure; he has in the words of a seaman "missed his tide."

Sir Charles Ruthen's Findings.

DURING his visit to the north Sir Charles Ruthen has spoken at several conferences and urged the necessity of completing work already started instead of dissipating efforts on new schemes. He estimates that output has been increased by seventy-five per cent. in skilled trades compared with the position six months ago, and that houses which would have cost £1,000 six months ago can now be erected for £600. He is hopeful that this figure will be decreased to £500 in six months' time, and then he considers the housing question will have been brought within reasonable compass. If Sir Charles is correct, as we hope he is, we think so too; and we would suggest that there is an intimate connection between an increased output of seventy-five per cent. and a fall in prices of forty per cent., and the lesson of this is that labour itself has retarded the provision of its own wants. More than this, we see no reason why the average man earning good wages should not be able to pay an economic rent for a house costing £500 or thereabouts, and if he can there is no reason why his requirements should not be met by the operation of the laws of demand and supply, and not at the expense of the taxpayer. The conclusion of this—although Sir Charles does not state it—is that there is no reason for a Government housing policy at all, apart from that in connection with congested urban areas.

Restoring the Castle of Chillon.

THE work of restoring the famous old castle of Chillon, near Montreux, which has been curtailed owing to budgetary reasons, has been confined to the floor on a level with the courtyard, and to the upper storey. The covered gallery has been reconstructed in oak with projection towards the lake, the Bernese windows walled, and the original windows of the thirteenth century, contemporaneous with the hall and gallery, re-established. On the upper storey, the window looking out on the lake has been restored to the original of the same century (a bay with two lancets, separated by a small colonnade and surmounted by a rose). Similarly, the huge fireplace



RESTORATION OF PINON. CHARLES ABELLA, Architect.

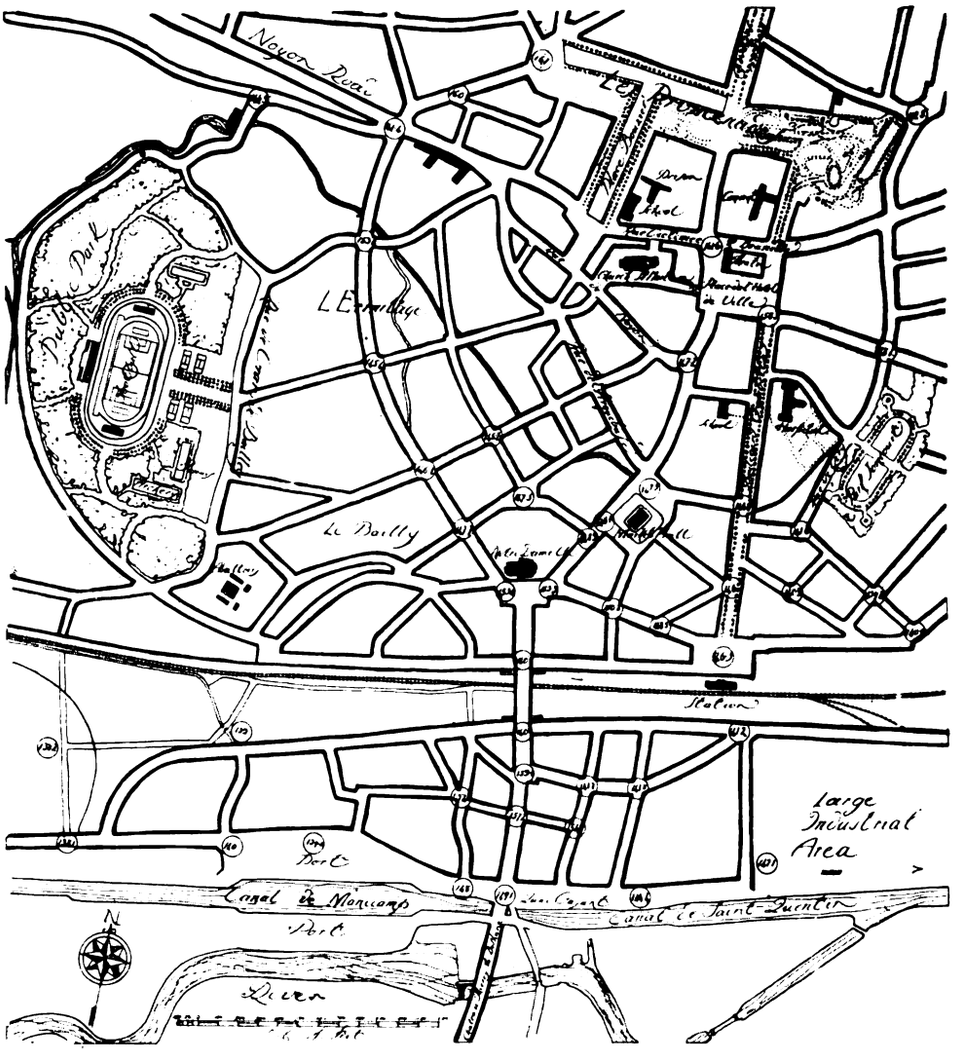
with lateral posts in the shape of small colonnades has been rebuilt. The dike at the approaches of the castle has been extended with a foundation of rough masonry under water. It is interesting to note that the work done has been largely paid for out of visitors' fees, and has no doubt been carried out by the Swiss with the careful and thorough antiquarian skill which the French displayed when restoring the famous Mont St. Michel in Brittany.

Marking the Angles of Streets.

Now that the "Shell" building is completed at the Aldwych end of Kingsway we have a good example of the advantages of symmetrical design at a terminal point. We admire Messrs. Trehearne and Norman's treatment of the angular blocks, which, with their octagonal pavilion roofs, are both picturesque and dignified, and afford a good setting for the Bush Company's fine building on the other side of Aldwych. It is a good illustration of the advantages of placing the design of adjacent buildings in the hands of the same architects, providing always—as in this case—the architects are good men. We have before commented on the unsatisfactory effect of Kingsway where designs have halted uncomfortably between an instinct for uniformity and the advantages of individual design, and it is a pleasure to be able to record the success of "going the whole hog." For except in small and relatively insignificant detail the two blocks of buildings are exactly similar, as we hope those surrounding Oxford Circus will also be.

THE Minister of Health (Sir Alfred Mond), answering Mr. Trevelyan Thomson, who asked whether the Government were prepared to extend the period during which Local Authorities in England and Wales could receive financial assistance under the Housing Act, 1919, until June 30, 1924, said that where work undertaken by Local Authorities could not for reasons outside the control of the Authorities be completed by July 1922, the time for completion would be extended by the Ministry as might be necessary.

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The Rebuilding of Chauny.

By A. C. Holliday.

The town of Chauny is situated on the banks of the Oise about sixty miles north-east of Paris. On the north bank of the river the communal territory is located, while the south bank is almost exclusively occupied by the Society of Saint-Gobain, where huge factories, chiefly employed in the manufacture of glass and sugar-refining, existed before the War. The population in 1835 was 4,500 inhabitants, and in 1914 it had increased to over 11,000, this rapid growth being the outcome of extensive development of industry in the town and agriculture in the surrounding districts.

On the cessation of hostilities a working population numbering nearly 6,000 resolved to return to the ruined town, with the result that the large local factories decided to reinstate and develop their manufactures. Under these conditions it became an immediate necessity to start the rebuilding of the city, and a competition was organised by the Renaissance des Cités in February 1919 for the replanning of Chauny.

The area to be replanned from the point of view of an economic development included Chauny and the region Chauney—Tergnier—La Fère. The region is situated midway between the coal mines on the north and Paris, and covers an area of about 15,000 acres, the whole being richly endowed with railways, waterways, and roads, together with ample electric power, furnished from the mines of Lens. This devastated area is undoubtedly one of great commercial interest, following the middle course of the Oise stretching from Chauny in the south and La Fère in the north, embracing the whole of the communications of Tergnier, the three urban centres, and the rural communities, the entire population numbering approximately 30,000.

In spite of the natural wealth of the neighbourhood a people of simple tastes and few ambitions kept back the economic progress of the district. But on the eve of war the awakening of productive activity had already begun, it became an almost sudden realisation that in the whole breadth of the region a magnificent industrial development would shortly take place.

It will be noted that the position of the Oise is exceptionally blessed by its geographical situation and the importance of all the means of communication which cover the district. The climatic conditions are chiefly influenced by the proximity of the river; the Chauny valley stretches on each side for about half a mile, and is flooded during the five months between autumn and spring; the flood water is forced by the river into the numerous ditches which plough up the surrounding meadows, forming the renowned pasture land from the Belgian frontier as far as Noyon, or is left in the lower parts of the land. This naturally causes frequent fogs, not always dissipated by the prevailing winds, which come from the north and north-west. At the beginning of the last century even the part marked out by the actual line of the railway was covered with lagoons and cut up by nauelles (the word "nauelle" comes from "navis"—a boat; they are natural canals, old branches of the Oise, which carry small boats).

Great interest was taken by the people of Chauny in the competition for the development of their new town—descriptive notes and a summary of propositions and requirements were added by them to the ones already drawn out by the Renaissance des Cités. Each competitor was furnished with this copy of requirements relating chiefly to open spaces, circulation, industries, public monuments, and concluding with a list of minor suggestions which the competitor was called upon to

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note. Besides these notes were given the rules of Hygiene, copy A and B of the Ministry of the Interior; two copies of the plan of the communal territory of Chauny; one copy of the plan of the region Chauny—La Fère; a copy of the station at Chauny and its approaches, indicating the considered disposal of parts; and a double copy of conditions to be filled in by the competitor, indicating the number of pieces in his scheme. Each scheme had to submit:—

(1) For the reconstruction and extension of Chauny (*a*) a plan of the communal territory, showing the proposed scheme clearly above the old. (*b*) The same plan showing only the proposed scheme.

(2) The advanced plan of the town planning of the region of Chauny, including a study of the region within the limits of the conditions provided to be worked out as the drawings given to the competitors.

(3) Optional: one or several designs especially to explain the graphical solutions of architectural problems, economic or hygienic, proposed on the plan.

(4) A descriptive statement: (*a*) Reconstruction and extension of the town of Chauny and the surrounding regions; the statement should explain the general composition of the plan and the reasons which have determined the solutions. (*b*) The adaptation of the rules of hygiene to the region of Chauny and environs with modifications according to local needs and conditions in accordance with proposed plans. The competitor could suggest a regulating of buildings on a districting plan.

Eighteen schemes were admitted into the competition and were submitted for examination to a jury presided over by M. Louis Bonnier, which was commissioned to make a report in order to guide the judgment of a further examining committee, comprising about sixty members representing administrative and technical competency.

The principal elements of the criticism made by the technical examiners were as follows: "The problem to be solved was that Chauny being completely destroyed should not be considered as a town which never existed, the character of the old town should be preserved and the favourable aspects revived to the greatest possible extent, applying the rules of hygiene and the laws of æsthetics. Too great a number of the competitors did not realise the elementary principles of town planning, and it was to be regretted that more often by pure imagination they completely transformed the face of the ancient town. Regional planning, although being of considerable importance in the solution of the scheme, had generally been neglected or simply touched upon very incompletely by the majority of the competitors.

The first premium was awarded to M. Louis Rey. His scheme was an interesting effort to keep as much as possible to the plan of ancient Chauny, at least in the essential parts, of the numerous old ways, although enlarged where necessary, most are preserved and follow the old traces.

A new 50-foot road from Chateau-Thierry and Bethune takes the place of the old irregular road forming a direct connecting link to the town proper. This road, passing through the manufacturing district of St. Gobain, crosses over the Oise and the canal Manicamp and St. Quentin at Quai Gayant, where the building line has been set back to 92 feet. To the left of the quay the canal widens, and on each bank large open spaces are left for the formation of two ports.

By a gradual rise the road reaches a bridge which crosses the railway and two flanking low-level roads connected to the high road by steps for the use of pedestrians. The one to the south is an important traffic route running parallel to the railway; to the east this road passes through a zone to be adapted to large industries, and a further zone on the other side of the railway is to be set aside for smaller industries. These two districts and the district St. Gobian are admirably placed for the purpose of carrying on manufactures, the prevailing winds which blow from the west carrying the smoke and fumes discharged in the manufacture of chemicals and glass away from the town. On the extreme east of the town a large plot of land is set aside for cattle markets and abattoirs.

After crossing the railway the road Chateau-Thierry widens into an 80-foot road, and reaches the Place of Notre-Dame, where a new site is chosen for the old church. This site comes a little further south, and is placed on an east and west axis, this being the reverse position of the old building. From the west of the Place Notre-Dame a fine, wide, tree-planted, segmental boulevard connects up the quarter L'Ermitage, forming a by-pass road for traffic coming from Chateau-Thierry to Bethune, and wishing to avoid the town. On the right a short road leads directly to the Station Place, which has been tremendously enlarged and remodelled. Axially with the station the Boulevard Gambetta forms a fine parkway through the heart of the city, on the right of this boulevard the district of the Camp-Solent, with the Parc Joncourt, is designed as a residential garden, while on the left two short roads lead to the old market place. Boulevard Gambetta terminates at the Place de l'Hotel de Ville, a rectangular "place" which is about three times its former size, taking in the sites of the old Palais de Justice and the Salles des Fêtes. From this "place" a short street gives access to the Church St. Martin, which is to be rebuilt on its old site centrally disposed in a large open space. Rue Victimée and Rue Ch. Brunette form part of the main traffic road from Noyens and La Fère, connecting Le Brouage and the Hameau de Senicourt. The latter is to be used for a restricted factory district.

Les Promenades des Ramparts, a great park-like space nearly three-quarters of a mile in length, is the important feature of the northern part of the town. This space, together with Place Bouzier, previously existed, but has been widened and formed into a more or less regular shape. This will provide cafés, concerts, and games, forming the amusement centre of the town, and here will be erected a monument to those who fell in the Great War. Centrally disposed, the Avenue de Salaine joins up the centre of the town through her promenades with the Chateau-Thierry to Bethune, crossing at right angles the old Noyon road on which three cemeteries are situated. To the extreme west is Cimetier Nouveau, and to the east Cimetier à Concessions and Cimetier Militaire. Still further east on the same road space is reserved for the erection of hospitals and sanatoria.

One of the finest features on the plan is the Parc Publique, situated between Le Bailly and L'Ermitage, both of which are to be laid out as garden cities. This park is the recreation centre of the town. A large stadium placed centrally provides a football ground and a running track, with pavilions and a grand stand. Other sporting facilities take the form of tennis courts and grounds for archery.

The entire scheme is one of competent and comprehensive handling, the traffic problems are dealt with in a most efficient manner, and the æsthetic qualities that the ancient town possessed have not been forgotten, receiving where possible the most minute consideration. The organisers of the scheme and the Renaissance des Cités are to be congratulated on having obtained the services of M. Louis Rey, who has so ably solved the problem which presented itself to the elaboration, reconstruction, and development of Chauny.

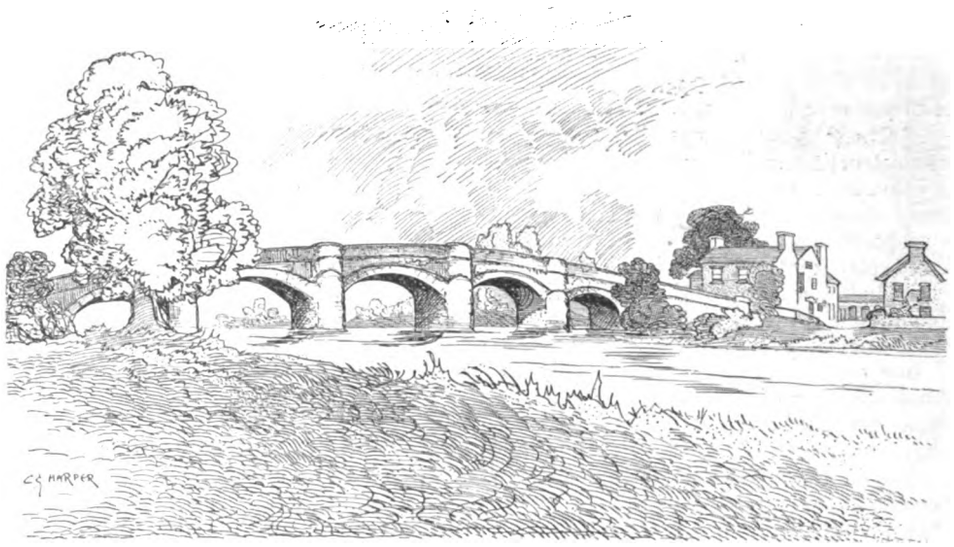
It is interesting to note that a further work has been organised by the municipality of Chauny, assisted by the Renaissance des Cités, for the study of the sanitation and drainage problems in the form of a competition which has recently been advertised in the building papers of this and other countries.

THE date for receiving entries for the October Membership Examination of the Society of Architects has been extended up to and including the first post on the morning of Thursday, September 15. A syllabus, form of entry, &c., can be obtained on application to the Secretary of the Society, 28 Bedford Square, London, W.C. 1.

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Bridges.—I.

By Charles G. Harper.



SWARKESTONE BRIDGE.

Sooner or later, on most roads, you come to a bridge. It is the almost inevitable experience of travel. There the traveller passes to-day, unhindered, rarely even in these times, by toll. And watersplashes to-day are so few that they have become curiosities. In our day we have ceased to regard a bridge with that reverence which once was thought its due. The Romans, mighty road-makers in their time, and builders of such works of utility as aqueducts, do not seem, in our own country at least, to have been especially great at bridge-building. They were often content to find a ford and to pave it, for safe passage. And when actually they had built a bridge travellers across it were so astonished at the fact of passing safely that they were commonly accustomed to cast coins into the stream, by way of appeasing the river-gods. A sort of insurance! That is why Roman coins have so often been found in river-beds, close beside the sites of those ancient bridges. Not coins of great value, just small offerings—small enough, one would think, to have infuriated what water-deities there were, if any at all. But that is the illogical human way.

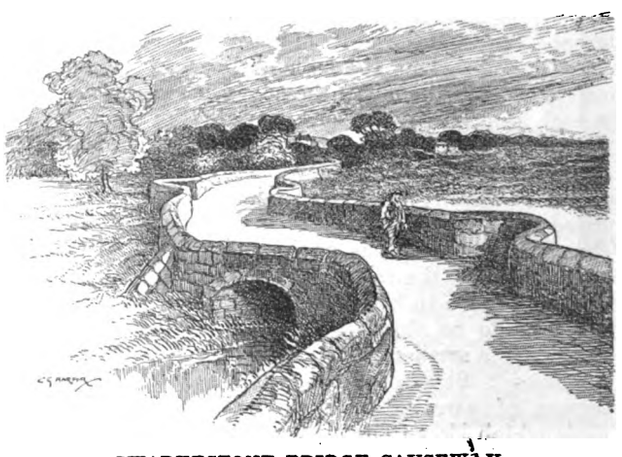
I shall not seek in the space at my command any Roman bridges, nor discourse of bridges to be found in any country other than our own, although in other realms there are more wonderful ancient structures of the kind than any we possess. The so-called "Harold's Bridge," the "oldest bridge in England," a popular but mistaken description of the little one-arched bridge over the Corn-mill stream at Waltham Abbey, appears really to be of the sixteenth century, if that crumbling three-ribbed structure is examined. It seems to be a depressed four-centred arch, at least five hundred years later than Harold's time, and is loosely styled "Harold's" because he is known to have built a bridge there.

The measure of rarity in bridges in old times gave them a vast importance. That considerable river, the Trent, was and remained a barrier between the North and South of England until late in the eighteenth century, and was a defence against the incursions of the Scots, merely because bridges crossing it were of old so rare. Thus Derby and Nottingham were large towns just because the Trent was bridged there; and the bloody battle of Stoke, near Newark, fought in 1487, was pitched there because the site was determined by armies marching for a bridge. In what Scotsmen term "the '45," when Prince Charlie and his Highlanders came down and got so far as Derby, they came this way for that same practical consideration, and at Swarkestone Bridge, not so far from that town, they penetrated as far as ever they went.

Until 1771, when Cavendish Bridge was built across the Trent, the present line of main road between Derby and London had not come into great use. Traffic generally went by Swarkestone. The Trent is a river with long stretches of flats for great distances on either side, lands greatly subject to flooding; and the scenery at Swarkestone is thoroughly typical of it. Thus it is that we have not merely the actual bridge across the river, but also a very long causeway, with arches to permit the flood-water to escape. Disregarding the legend of the two sisters whose lovers were drowned here, before ever there was a bridge, and the subsequent expenditure of their entire fortune in constructing one, with a votive chapel upon it, we may really find the origin of the work in the



HAROLD'S BRIDGE, WALTHAM ABBEY.



SWARKESTONE BRIDGE CAUSEWAY.

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AYLESFORD BRIDGE.

twelfth-century enterprise of the neighbouring Priory of Repton, which built and maintained it, just in the way that most monastic establishments performed similar works, all over the country, and in foreign lands. It was then considered to be one of the foremost works of Christian charity, and benefactors who helped these affairs of practical piety got a swifter pass through purgatory to the realms of joy.

Henry the Eighth's Commissioners, reporting upon Swarkestone Bridge, in 1552, stated there was then a chapel on it. "We saye," they remarked, "that if the chappell dekeye, the bridge wyll not stande." They were wrong: the chapel was allowed to decay and to disappear, and yet the bridge stood until 1795, when floods brought down a heavy lot of timber, which came like a battering-ram against the bridge, and overthrew it. Thus it is only the far more ancient causeway, and not the present bridge, which dates from 1796, that remains of that time when Prince Charles's Army came thus far, and no further, in 1745.

Many of our ancient bridges are, for the reasons already recounted, of religious origin. There was much reliance placed on good works in those times. There is, indeed, close beside the Great North Road, at Water Newton, a mysterious little effigy in a niche on the west face of the church tower, representing a man in semi-ecclesiastical attire, his hands clasped in prayer; and the inscription, in illiterate Norman-French, beneath:—

VOVS : KE : PAR
ISSI : PASSEZ :
POVR : LE : ALME
TOMAS : PVR
DEN : PRIEZ



WATER NEWTON CHURCH.



EFFIGY OF THOMAS PURDEN, WATER NEWTON.

The head of this effigy is a modern restoration of the one that had long been missing.

No one prays now for the soul of Thomas Purden, nor knows who he was, nor for what service rendered he then desired wayfarers' intercessions. That he expected some gratitude is obvious; and it seems likely, from the situation of the place, that he built a bridge, or at least instituted a ford or a ferry, for a Roman and later road, pointing towards Castor, on the other side of the River Nene, then existed. It exists no longer, and Water Newton Church, itself Norman and Early English, stands in the meadows, on no road at all. Hence no wayfarer any longer "passes this way"; and on that count at least, if for no other, Thomas Purden has been cheated, by the ancient diversion of the highway, which now runs to Wansford Bridge and Stamford. It was so comparatively late as 1577 that this bridge was built, with its thirteen arches. It is a bridge exceedingly narrow, and dangerous, since the introduction of motor-cars. There has been talk of rebuilding it; just as about 1904 there was a proposal to demolish, or at least to remodel, the beautiful, but steep and narrow, fourteenth-century bridge of Aylesford, on the Medway, near Maidstone, whose series of narrow, pointed arches had been already broken through to make a wider passage for barges.

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ABINGDON BRIDGE.

The story of Abingdon (or, technically, "Burford") Bridge, is a very eloquent and interesting affair. This ancient bridge, with every one of its arches a different size and shape, is part of a long causeway leading across the water-meadows to the bridge at Culham Hithe. These works are the subject of an old oil-painting and a long and curious set of black-letter verses still preserved in Christ's Hospital, Abingdon; an almshouse which was in the first instance a religious guild. The bridge, originally "Borough-ford" Bridge, is said to have been built as a seven-arched structure by Nicholas of Coleham, or Culham, Prior, and afterwards Abbot, of Abingdon, 1289-1307; and Culham Hithe Bridge dates from 1406. The quaint-rhymed account of the bridge-building preserved in the almshouse dates from the time of Henry the Sixth, and is by Richard Fannande, an ironmonger of the town. According to this account, both bridges were built at the same time, under letters-patent from King Henry the Fifth, dated June 23, 1416, when he "gave leave and licence unto John Huchion, John Brite, and the commons of Abingdon to erect and build the said bridges." And (a graceful concession, this!) to "raise and make the said way at their own costs and charges, the alms of the town, and the benevolence of well-disposed persons."



THE BRIDGE BUILDERS, ABINGDON

Jeffery Barber was the chief figure in these works. He is pictured in the old oil-painting (made many years after 1607) at the cost of Francis Little, one of the governors of the hospital. In this work Barber is seen handing a bag of money to one John Howchion, or Huchion; or probably in reality "Hutchins"; while in the background is a view of Abingdon, with the masons in the distance, at work on the bridges.

Before those bridges came into existence the road was in a scandalously dangerous condition, with fords and ferries often fatal, and ferrymen who seem to have been brigands in disguise; and a very thin disguise at that:—

"Few folke there were coude that waye wende
But they waged a wed, or payed of her purse.
And if it were a beggar had breed in his bagge,
He schulde be ryght soone i-bid for to goo aboute;
And of the pore penyles the hireward wold habbe
A hood, or a girdel, and let hem goo withoute,
Many moo myscheves there were, I saye,
Culham Hithe hath caused many a curse
I-blyssed be our helpers, we have a better waye
Without any peny for cart and for horse."

There is much more of this singular and crabbed verse, but enough has been quoted to disclose the bitter cry of travellers this way.

But we must have some lines showing the enthusiasm and the excitement then displayed. Thus:—

"Off alle Werkes in this Worlde that ever were wrought,
Holy Chirche is chefe, there children been cherysed
for be Baptifm these Barnes to Bliffe been i-brought
Thorough the Grace of God, and fayre refrefhed.
Another bliffed Besinefs is Brigges to make
There, that the Pepul may not paffe (pause) after great showers,
Dole it is to drawe a deed Body out of a Lake
That was fulled in a Fount Stoon, and a felow of oures.

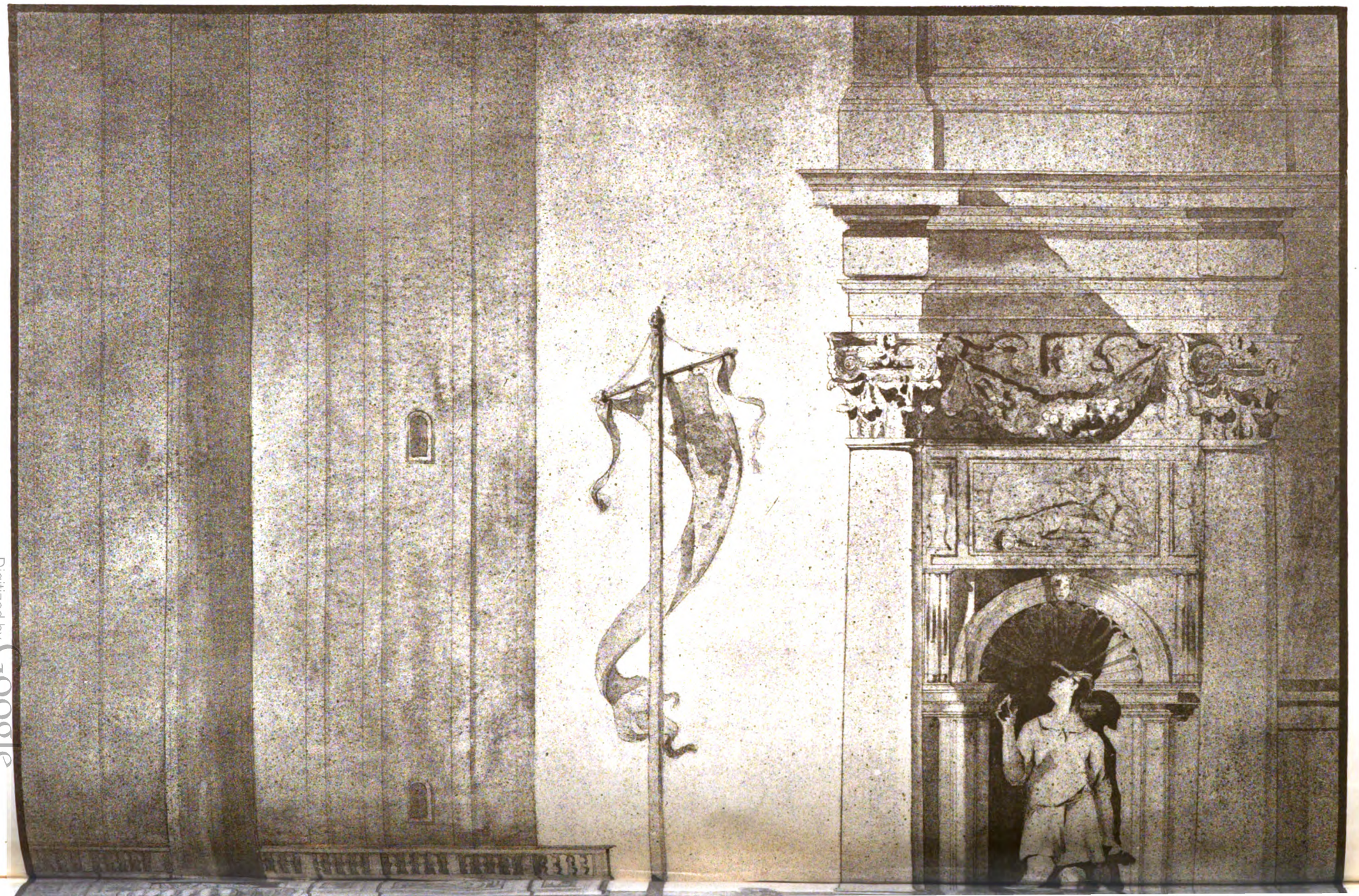
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They reysid up the archeys be geometre in rysing,
With xi laborers lavyng at onys.
There was water, I nowhe, stone, lyme and gravel,
Werkemen als wise as they coude fynde any.

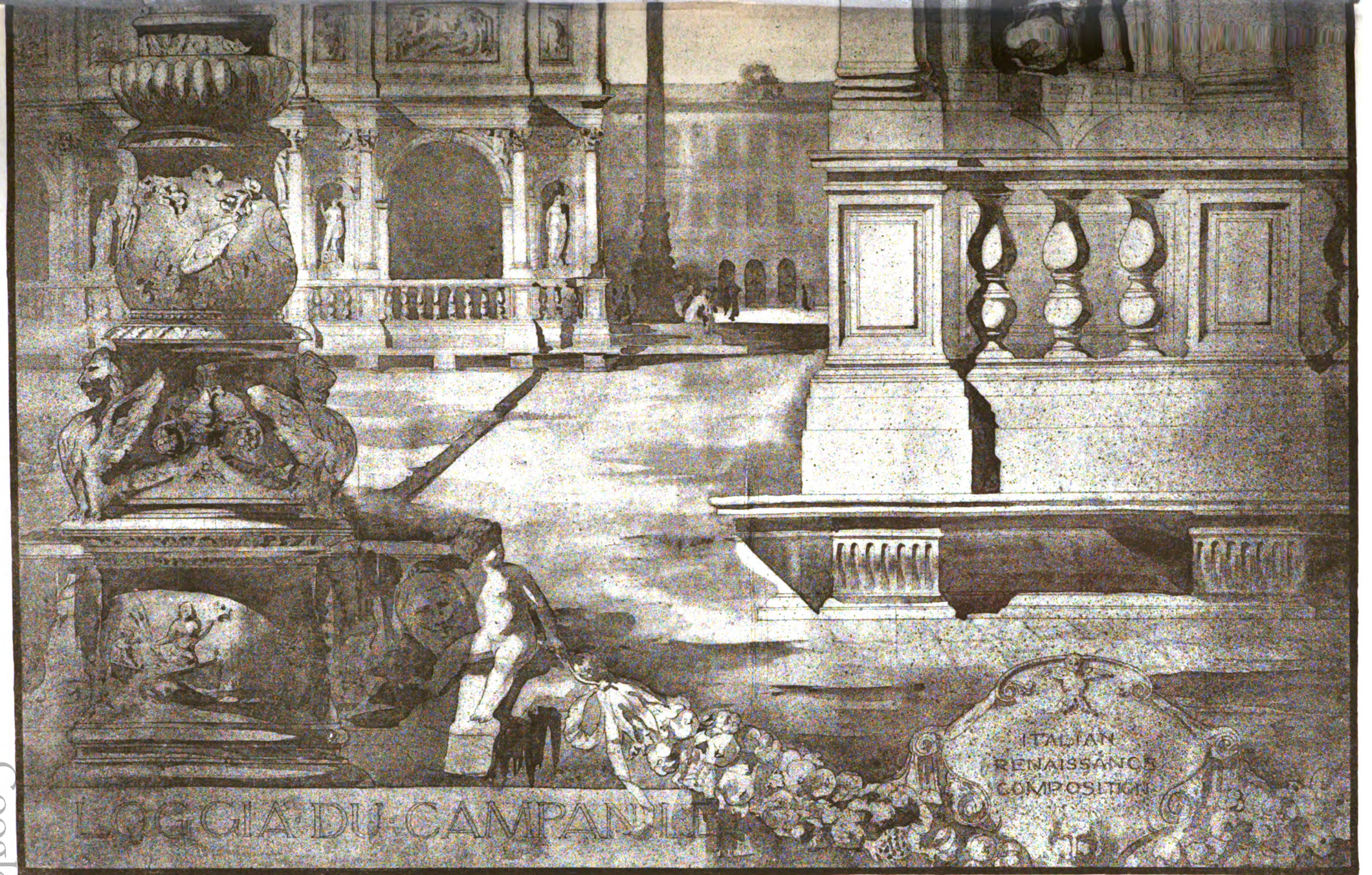
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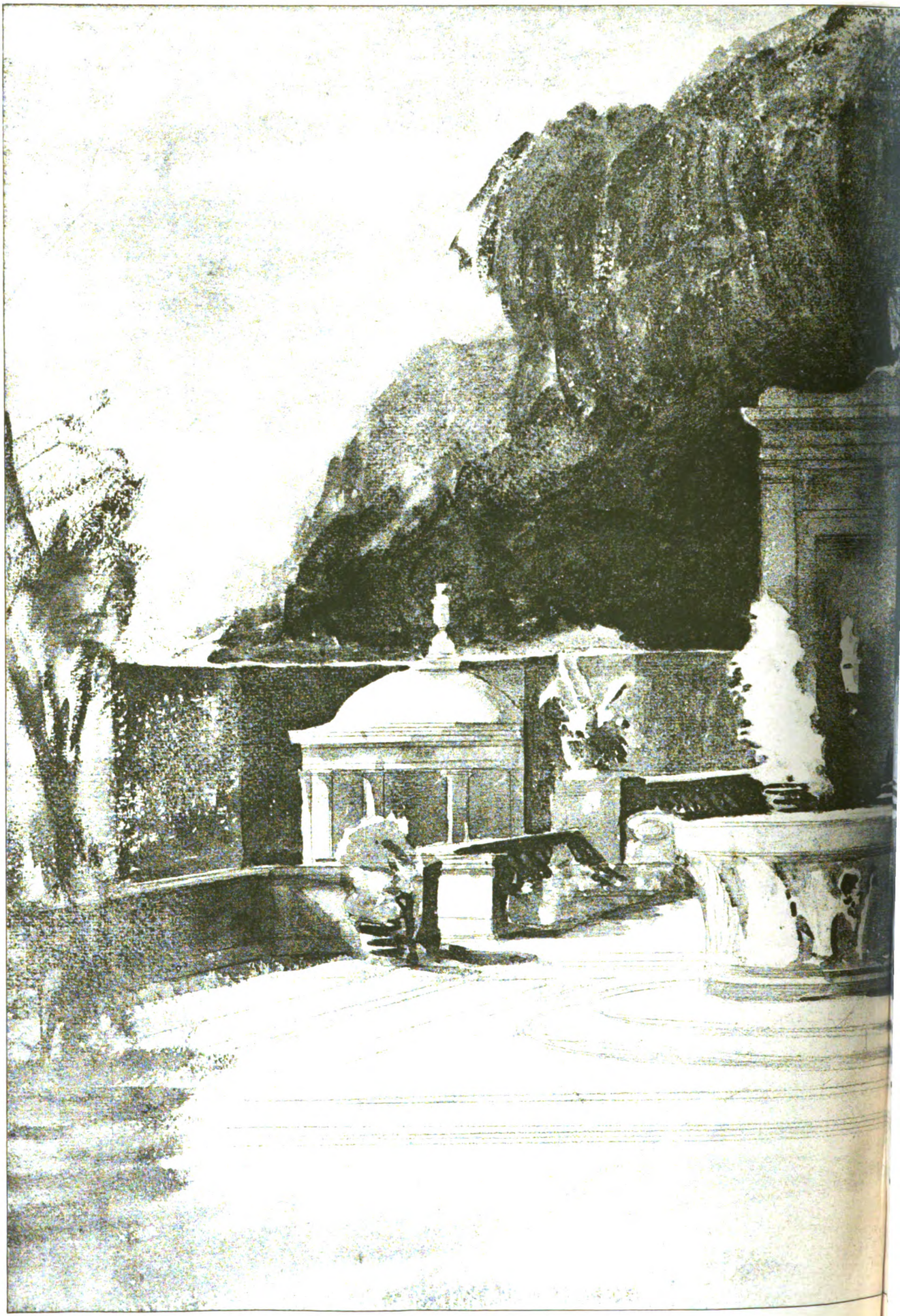
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ARCHITECTURAL ASSOCIATION STUDENTS' DRAWINGS: AN ITALIAN RENAISSANCE COMPOSITION.

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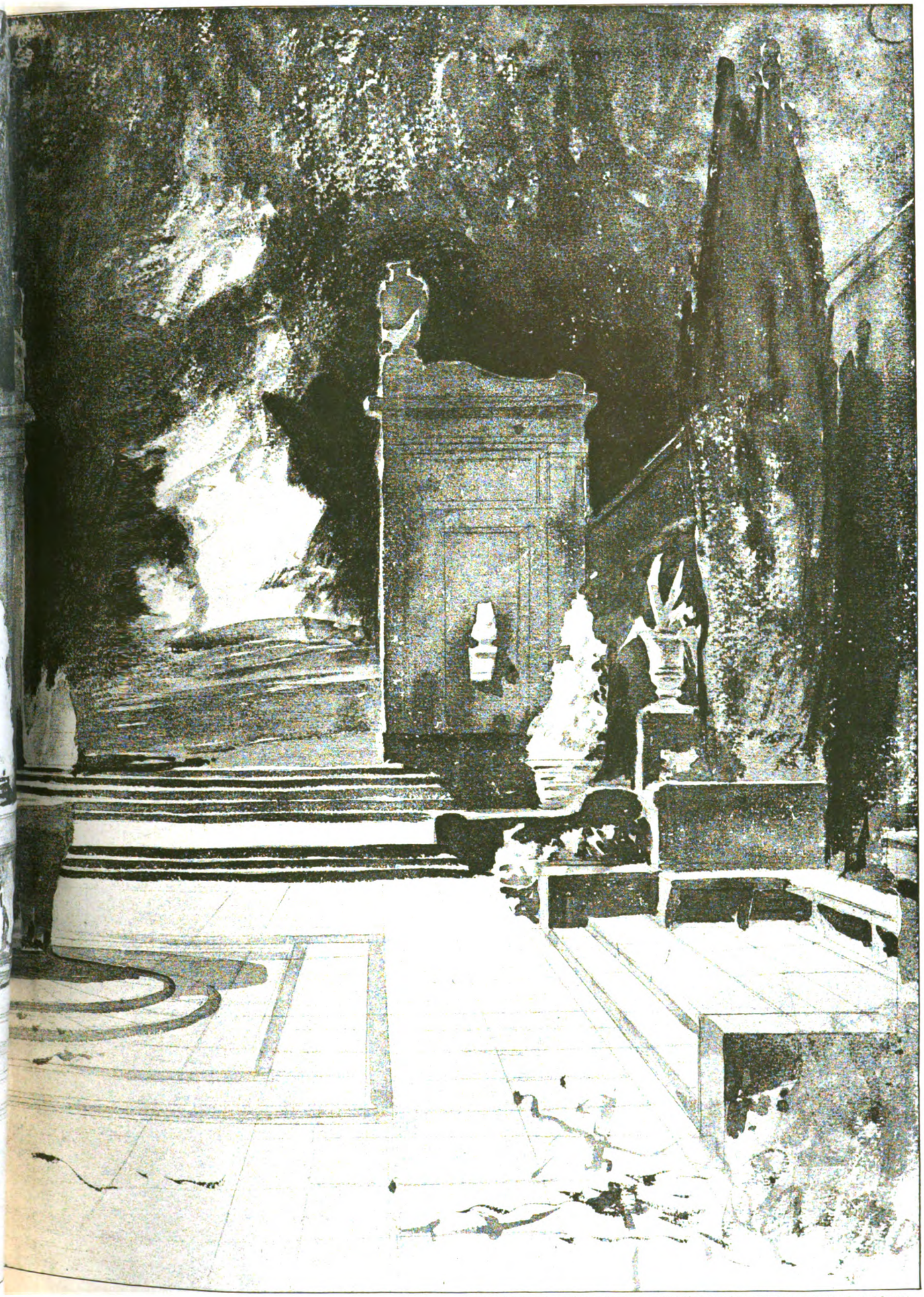
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GARDEN CHER
ROBERT

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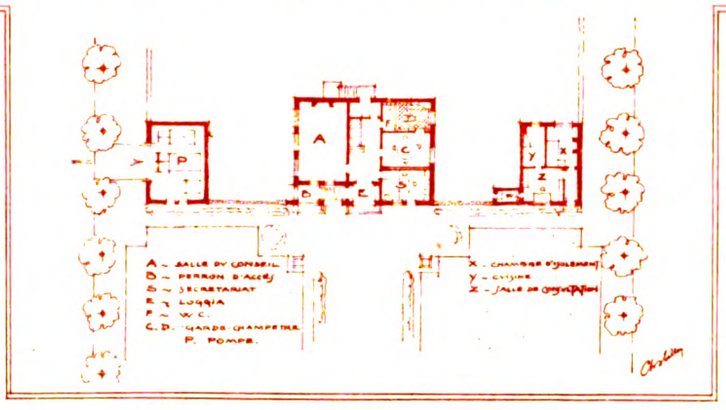
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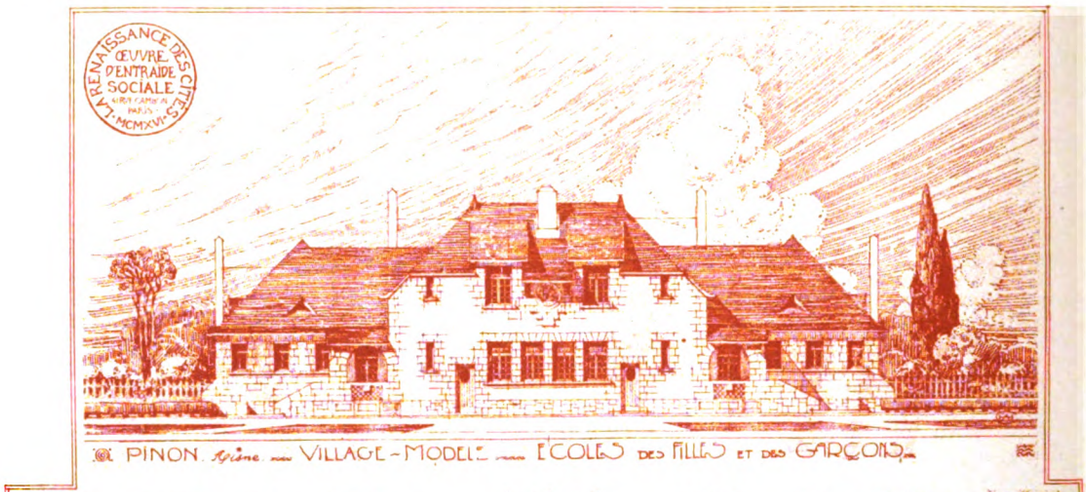
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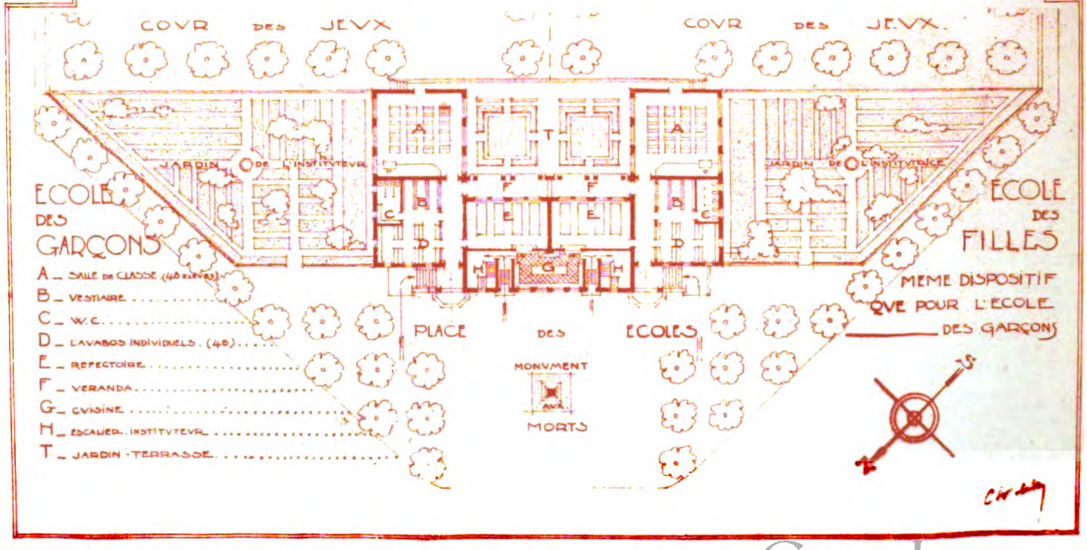
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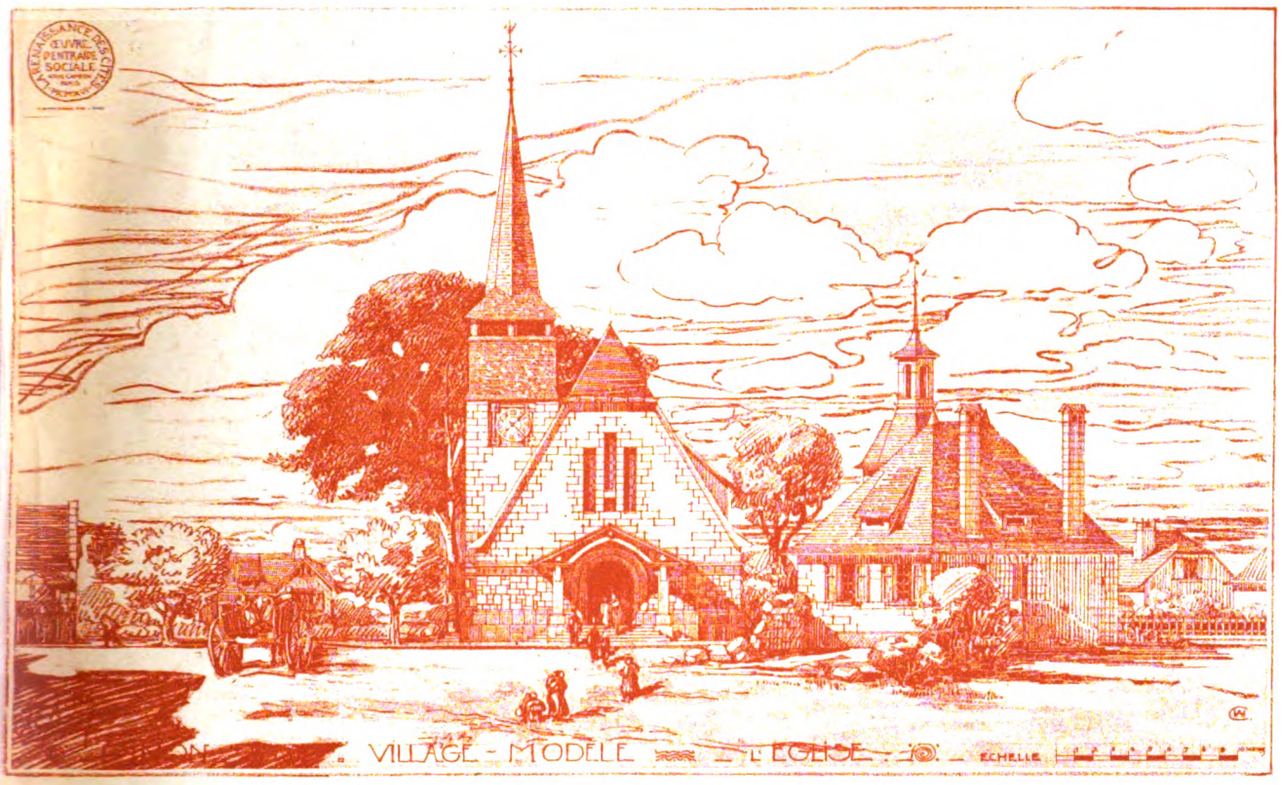


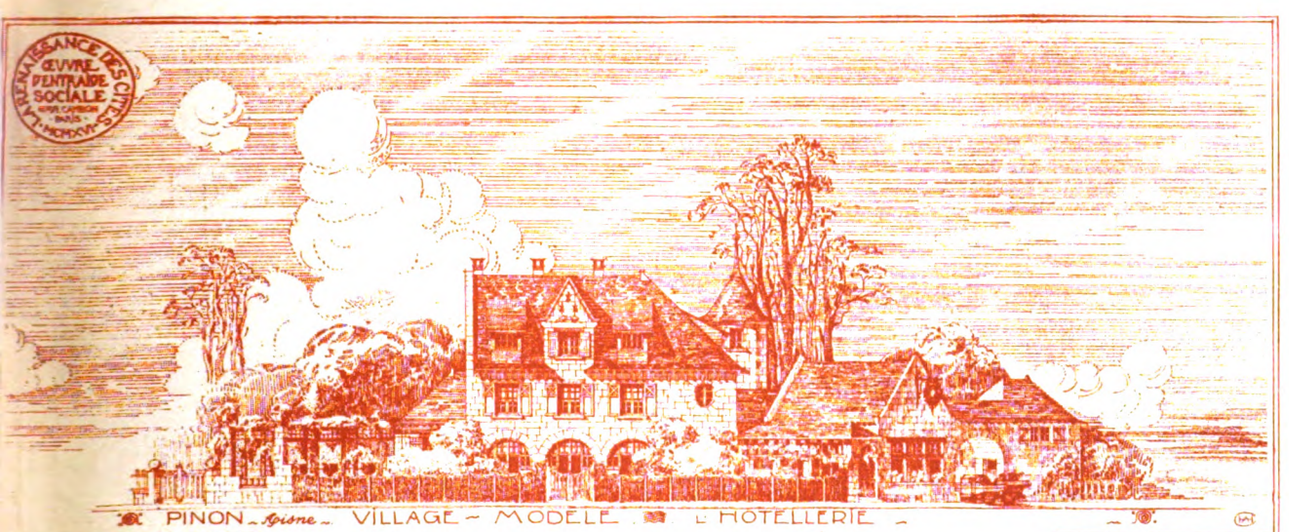


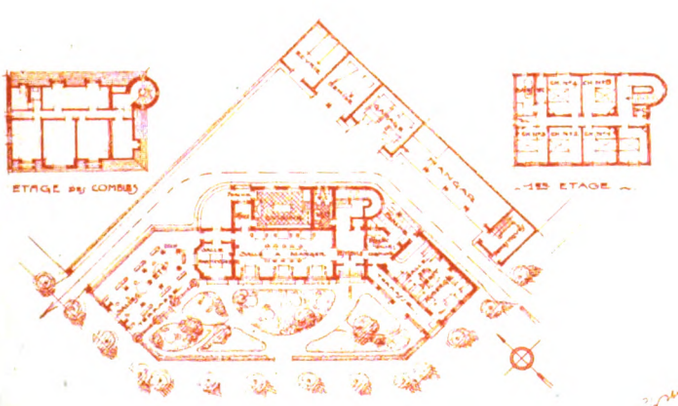




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STRUCTION OF PINON.

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CULHAM HITHE.

It was a solace to see in a somer sesoun
C.C.C., I wysse workyng at onys,
iiii and iiii revlyd be resoun,
To wete who wroughte best were set for the nonce.
The mattock was mann handeled right welle a whyle;
With spades and schovells they made suche a noyse,
That men myght here hem thens a myle."

This furious scene of industry might well make a modern employer sigh. By reason of it, the work was soon done.

Culham Hithe is to this day a kind of Thames backwater, full of mud, willows and rushes. The old bridge cuts right through it; and from its rude but sturdy parapet we may judge something of the disabilities attendant long ago in coming this way to Abingdon. The "Nag's Head" inn stands in midst of Abingdon Bridge, and suggests by its odd position that it occupies the site of an ancient bridge-chapel.

(To be continued.)

Correspondence.

"Studies of the English Sculptors from Pierce to Chantrey."

To the Editor of THE ARCHITECT.

SIR,—In the absence of any definite evidence to the contrary, I gave the elder Pierce's death in my paper on Edward Pierce the Younger as towards 1670, and his burial-place as Stamford.

I am now in a position to correct this, as in Nichols' great "History of Leicestershire" I have just come upon the following epitaph, which was, and probably is, to be seen in the churchyard of Bottesford: "Here lieth the body of Edward Pearce || Citizen and Painter—Stainer of London || Who expired in the Right Honourable || the Earl of Rutland's employment at Belvoir Castle || the 17th day of August in the year 1658." This really settles the matter, as Walpole speaks of his work at Belvoir. Moreover, it explains why the younger Pierce should have made a bust of Sir Thomas Evans, Master of the Painter-Stainers, for I think it is not on record hitherto that his father was a member of the Company.

I greatly regret that I did not make this discovery earlier, in time to avoid defacing your pages with a traditional inaccuracy.—Yours, &c.,

K. A. ESDAILE.

The Government Report on the Cost of Housing.

To the Editor of THE ARCHITECT.

SIR,—There is little satisfaction to be gained from the latest Government Committee's report on housing. It appears to be an attenuated, up-to-date re-hash of the "Tudor Walters Report" of 1918. Surely the "penny rate" fallacy is sufficiently exposed by this time to make it unnecessary to retain it in the housing "book of words."

The figures given as to the number of skilled tradesmen employed in building works are startling: Total employed in 1901, 720,229; total employed in 1920 (January), 324,812; total employed in 1920 (July), 365,596; total employed in 1914 (July), 434,801.

Decreases in the number of skilled men available in England and Wales were: 1901-11, 73,290; 1911-14 (July), 223,421; 1914-20 (January), 98,706.

It will be seen from these figures that the decrease from 1911 to 1914 was considerably more than double that caused by the war itself, and that even under the pressure of the Government housing scheme the number of skilled men was only increased by 40,782. The figures also point to the effects of the Land Duty Clauses of the "People's Budget," which killed the only method of building small houses available.

When the increasing burden of the rates made house-building unprofitable a supply of houses was kept up by the development of land as building sites, the enhanced value of the land thus developed paying for lack of profit on the actual building. The method may be compared to making a clock to get a profit on the case. It was scarcely "ideal," and would have probably been, in time, killed by the increasing burdens on building. However, the system was the only one left; the Land Duties wiped it out, and with it the speculative builder's houses.

The community has lost, and is losing, hundreds of millions in created wealth, tens of millions in annual value; houses are becoming a rare luxury, and the whole building industry will shortly be unemployed or driven into other trades.—Yours, &c.,

E. G. HOLTOM, F.R.I.B.A., M.S.A.

Holt, Norfolk.

WE understand that Mr. Councillor W. Roland Howell, F.R.I.B.A., has been chosen as Mayor-designate for Reading for the municipal year beginning on November 9. Mr. Howell was born and educated at Reading, and has passed practically all his professional life there. On his election to the Town Council in 1911 he set himself to the reform of the building by-laws.

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Wall Paintings of the Etruscan Tombs.*—I.

By Selwyn Brinton, M.A.

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No more fascinating subject can be found in antiquarian research than that which occupies the volume we are here discussing, which was commenced by Dr. Weege when in 1907 he had visited for the first time the tombs of Southern Etruria, and had later completed his studies, the first proofs of which were already set up when war broke out.

There seems hitherto to have been some specially bad fortune waiting for those who have attempted to treat adequately this theme of Etruscan mural paintings. There may have been some fortunate exceptions: but in the eighteenth century the British explorer Byres died before he could publish his fine series of plates, with the results of his investigations; in the nineteenth century Baron Stackelberg shared a like fate, having overtaxed his strength in these studies; and in the present case, as the writer points out, this work, held up during the war, has been at last published with difficulty, and reduced in subject to the wall paintings of Corneto, leaving other Etruscan cities—such as Veii, Chiusi, Orvieto—for later treatment. Dr. Weege has, however, been fortunate in finding a publisher such as Max Niemeyer of Halle, who through his own studies and residence in Italy is thoroughly in sympathy with the subject of this work; and he has also to thank the assistance of Fraulein E. Niemeyer, the sister of his publisher, both in the drawings for illustration and the admirable book cover, a really charming design, which reproduces in gold on blue-grey ground the figure of the horseman from the Tomba del Barone.

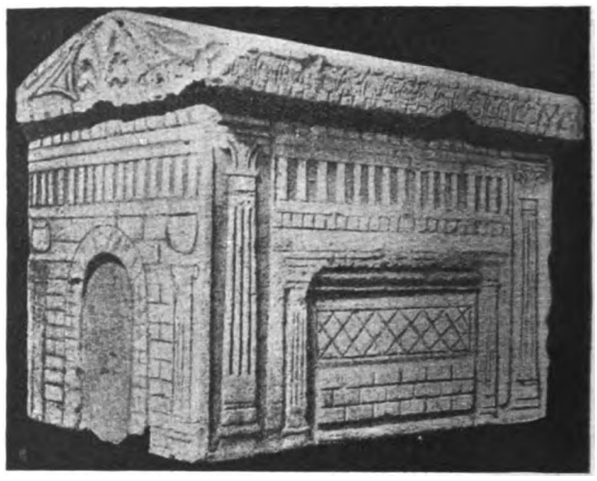
The value of the work, therefore, is not so much a record of recent discovery—for the late wonderful finds of Veii lie outside its material—as a general survey of Etruscan art and life, especially as presented in the tomb paintings of Corneto Tarquinii; and as such it possesses very remarkable interest and value. For the author has gone very deeply into his subject, and does full justice to the superb qualities to be found in Etruscan design, of which Möller van den Bruck has said: "the most astonishing thing in all Etruscan art is perhaps their drawing, that marvellous security with which they know how to grasp and hold a form through the simple line." That this art was originally independent of Greece in its inception seems certain; and I wish here to point out that it possesses extraordinary interest in connection with recent tendencies of what is best in modern plastic art.

"Etruscan art," writes Dr. Weege, "is not a weak copy of the Greek, but rich in its own life. The bold line, the markedly architectural element in the construction of Etruscan figures is something exceptionally characteristic. . . . Under a strongly architectural principle is the form of the body brought together, the horizontal and vertical lines everywhere cutting in sharp angles."

In this connection—which finds illustration in the Etruscan sarcophagi—it may be recalled that these Etruscans were magnificent bronze-founders as well as goldsmiths. That fine upright draped male figure in bronze of an orator (Arringatore), found in Renaissance days near Lake Trasimene, bears an Etruscan name (Avle Metle) on the hem of his mantle. The Chimaera, found in 1553 in Arezzo, and restored by Cellini himself in 1554, was also Etruscan and dedicated to the God Tin; and the world-famed Roman wolf of the Capitol (to which the twins were added later) is probably an Etruscan bronze.

Here we come upon two questions of very exceptional interest, to which I shall now devote the remainder of my space in the present notice. One of these is the intermingling and influence of Etruscan art upon that of Rome: the other the connection to be traced between this art of the Etruscans and that of the Italian Renaissance.

What seems certain is that Rome owed an immense debt, not only in her formal religion and state ceremonial and display (the lictors with their fasces are mentioned by Livy as an instance) but also in her whole culture to Etruria, which was a powerful and highly advanced confederation of allied cities, covering northern and central Italy and extending its influence over the south, while Rome was in her first beginnings. Dr. Weege traces this influence very directly in Roman architecture, not only in the early buildings of the time of the Kings, the vaulted drains and conduits, the state prisons and ground plan of the temple of Jupiter on the Capitol, but even as far down as the internal ceiling decoration of such a building as the Pantheon and the form selected for the Mausoleums



ETRUSCAN URN IN FORM OF A BUILDING. (From Milani.)

of the Cæsars. In this connection our illustration of an Etruscan urn in the form of a house or temple is of considerable interest.

In the state ceremonial of Rome this influence appears not only in the fasces and axe of the lictors, and their number of twelve (v. here Livy, Book I, Ch. VIII.),—the number of the leagued Etruscan nations,—but in the purple hem of the "toga prætextata," the ivory seats (sella curulis) of the magistrates, the "bulla" brought down from the Etruscan Kings and Lucumos) and golden wreath of the Triumphator, the trumpets preceding the Roman Triumph. Even the boys of Rome at school—says Livy again—were in the earlier days taught Etruscan literature, just as in a later age they were taught Greek,—"tum Romanos pueros sicut nunc Graecis ita Etruscis litteris erudiri solitos."

Then with the conquest of Greece came the overpowering flood of Greek literature, Greek philosophy and art,—and carried all before it. That there was a struggle between the old and new culture seems clear; but even in their art, as I have studied it within the Museum of Perugia, the Etruscan spirit had imbibed and freely used the beautiful Greek mythology,—and now the attraction of Hellas at the very height of her wonderful culture was irresistible, so that in the days of Cicero and Lucretius all the best minds of Rome had come under its spell. The older Etruscan life disappeared, absorbed in the double flood of Roman world empire and Greek culture; so that its very language was forgotten, and has never yet been recovered, and the best of Etruscan art very unjustly often put down to the Greeks. Only in the tombs, themselves rifled by the Latins for treasure, does it survive to tell us of that old wonderful life of Etruscan Italy, which I am going to study in some detail in the succeeding notice.

(*To be continued.*)

* Fritz Weege. "Etruskische Malerei." Mit 89 Textabildungen und 101 Tafeln. Max Niemeyer Verlag. Halle (Saale) 1921.

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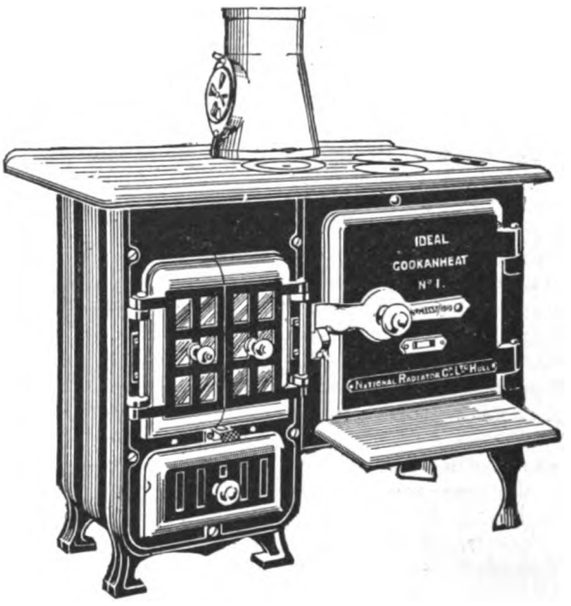
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The Call of the Past.

By Percy L. Marks.

My thoughts have been of late led into a path—or rather into a highway—which, stretching backwards in a long unbroken, though ever more-dimmed vista, shows the centuries of the past, as the gaze is turned upon it, ere looking forward into the still mistier future. And though the immediate connection between the current of my thoughts and the subsequent line of consideration may not perhaps be at first apparent, yet a little deliberation will resolve what may for a brief spell have been dubious.

The rearward glance need scarce travel further than the days, following upon the Norman Conquest, when William Bastard made a far cleaner sweep in our fair isle than did Oliver Protector six centuries later. The Norman king by right of conquest, dispossessed, possessed and re-possessed according to his will, and who should say him nay? For his Norman barons were not the turbulent men of John Lackland's days nor the unruly elements of Puritan England.

And so William introduced into this country his forest laws, his game laws, but above all, his Feudal system, whereby the sole proprietor of the soil was the Sovereign Lord of the Realm, whilst all under him held feoff for military service or other legal consideration. The great nobles held from the sovereign, and under them were feoffees and sub-feoffees, until we arrive at the serfs, who were not in a position to hold any lands at all. Nor did they want them, nor were they unhappy in the lack of possessions. If many of them might have felt some dumb unnameable dissatisfaction with their condition and wondered whether God in Heaven (if they had any cognizance of Him), approved the inequality of mundane affairs, the vast majority were satisfied to be free from the burden of responsibility, satisfied to be housed (however indifferently), satisfied, to be fed (bountifully, if coarsely), satisfied to be clothed, even if only in rags. Yes! and they were withal happy; they had not to think of the morrow; they had their labour of the day, their pastimes of the evening; and at times, too often recurrent, they had their battles, or rather in many cases other peoples' battles, to fight. They buckled and generated, lived and died, and are forgotten—and are they any the worse off thereby? Amongst them may have been some village Hampdens, some heroes, some poets, some unrecognised intelligent and intellectual men and women; but this is well worth remembering, namely, that unusual intellect (for here there is no concern with the virtues of heroism and martial valour)—unusual intellect can make its way to the fore, despite the clogging effects of general and unregretted ignorance. Nor does this apply to any one country or nationality:—John Smeaton, Robert Burns, Bernard Palissy, Gottfried Mind, Abraham Lincoln—these and many others had to make their own way from the ranks merely by virtue of their uncommon intelligence.

Arguments are rife against the legality, the justice of the Feudal system, but are we any better without it? Were we not better off when it was in vogue, and was not the workman in all respects happier, when he carried on his trade under Guild conditions, Unions in the modern sense of the term being then undreamt of, unthinkable? The scale of pay was adequate for the man's requirements, even if it were insufficient to deck his wife and daughters in jewellery or to provide himself with an unnecessary pianoforte. The ale-house was at his service, where he could meet his cronies for a smoke, a drink, and a chat; the women had the village green; education of an adequate even if elementary nature was provided for the rising generation—in fact, the condition of the so-called masses was more satisfactory in some respects than that of the so-called classes, for in too many instances the kind of existence, led by the latter, developed a selfishness of outlook and a heedlessness of the result of action, which were destructive of nobility of character.

But where, on the other hand, the man of "class" showed himself a keen supporter of the duties, as contrasted with the supposed mere pleasures of feudal prerogatives, then both his own life and that of his feoffees and of his territorial flock in general were happier by far than the modern cataclysmic conditions can possibly provide. In England in those receding days, save on rare occasions, the people remained happy and passive—what a contrast to the state of affairs in France at the same period or periods! There the paysannerie remained for the most part, it is true, passive; but it was an existence of dumb misery, bestial passivity. But the fault in France was not with the proprietorial system of land tenure; no, it was the proprietorial system of man tenure. And it must be remembered, too, that saving as regards copyhold tenure, the Feudal system, as a system, had expired or at any rate had altered in character in England long before any notable change had been effected in the paternal relations, whose loss is so much to be deplored.

As I regard it, the connection between such relations and modern trade conditions is intimate; undigested education is but ignorance disguised, and it is this which has proved the undoing of those who once held properly the title of the "working-classes"; capital in those days was not regarded as the foe of labour (which is, of course, a patent absurdity), nor was work regarded as a necessary evil, to be scamped and dishonoured.

Capital! What a bogey is made of this by the sensation-mongers who misrepresent the wage-earning class! If only the members of the trades unions would take a large grasp of the ethics of capital and labour; if they would but recognise the mutual interdependence existing! would recognise that capital without labour is mere dross, that labour without capital is mere drudgery—if they would but recognise that a fair day's work demands a fair day's pay in the same proportion as, and in no greater proportion than, a fair day's pay can only properly and economically follow upon a fair day's work!

Ca' canny is damned both by its name and its nature; the increasing demand for payment by results should be met by the worker with ever-growing enthusiasm, as being the one and only means of freeing him from the tyranny of trade unionism in its modern guise.

"The Architect" Fifty Years Ago.

SEPTEMBER 9, 1871.

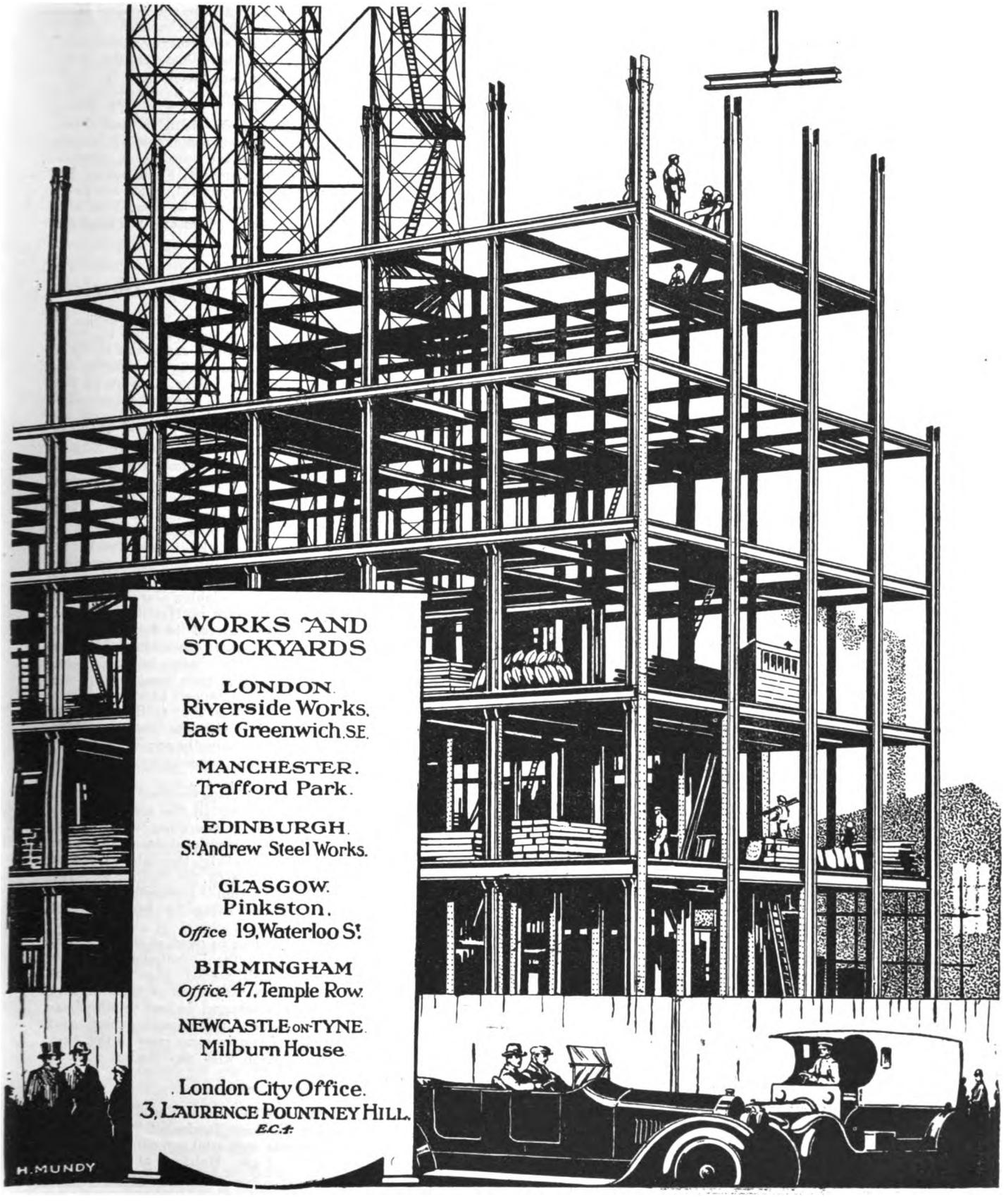
MERCHANT TAYLORS' HALL.—A corridor has recently been constructed on the south side of this hall, under the directions of Mr. I'Anson, the architect to the Company, for the purpose of affording a means of communication between the eastern and western portion of the Company's buildings. The corridor is about 112 feet long and 7 feet 6 inches wide, and has a range of twenty-five richly traceried windows in the two eastern bays; for these windows designs have been provided by Mr. T. M. Allen and Mr. Metcalfe, the execution being entrusted to Messrs. Heaton, Butler & Bayne. Three of the windows are occupied with reference to the famous quarrel between the Merchant Taylors' and the Skinners' Companies. In one is given a representation of a civic procession, in which the two Companies appear to be struggling for precedence. Another shows the Lord Mayor and Alderman, to whom the dispute was referred by the Court of Queen's Bench, in 1483, giving their decision, which was to the effect that the two Companies should take precedence of each other alternately, except either claimed the Lord Mayor of the year, in which case that one would take the lead. To cement the friendship between the two parties, it was further decided that each should dine at the other's hall twice a year, and the third window shows one of these banquets in progress. The other decorations of the corridor are of an elegant and artistic character.

THE Berkshire Education Committee have given formal notice of their intention to provide a new public elementary school for about 350 children at Bracknell.

MESSRS. FORD & SLATER, F.R.I.B.A., of Burslem, are the architects for an electricity sub-station proposed to be erected at Basford by the Stoke-on-Trent Corporation.

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General.

THE Antwerp "Neptune" states that one of the most important Belgian cement works obtained a contract for the supply of cement to the South African Government. On arrival the consignment was found to be of thoroughly inferior quality, and acceptance was refused. An analysis was subsequently made by the Tribunal de Commerce of Antwerp, which confirmed the analysis made at Cape Town. Furthermore, it was established officially that the packing used in no way corresponded with the requirements. The paper expresses the fear that Belgian cement will henceforth be boycotted in British markets.

THE death has occurred in Edinburgh, at the age of eighty-five, of Mr. George S. Aitken, architect, who was the first President of the Edinburgh Architectural Association. The Association was founded on Mr. Aitken's suggestion, and the first meeting took place in 1859. Mr. Aitken, who was keenly interested in Old and New Edinburgh, carried through for Lord Rosebery the restorations at Lady Stair's house in the Lawnmarket. He also assisted Professor Geddes in his elaborate volume of plans and suggestions for the improvement of Dunfermline. During his professional career Mr. Aitken has resided at London, Manchester, Dundee, and Edinburgh.

THE Home Secretary has appointed a Committee to re-examine, more particularly in the light of the further information which has become available since the inquiries of the Departmental Committees appointed in 1911, the question of the danger from the use of lead paints to workers in the painting trades, and the comparative efficiency and cost, and the effect on the health of the workers, of paints containing lead and leadless paints respectively; and to advise whether any modifications of the conclusions and recommendations of those Committees have become necessary. The Committee consists of: Major the Right Hon. Sir Henry Norman, Bt., M.P. (chairman); Mr. Gerald Bellhouse, C.B.E.; Mr. O. J. Kauffmann, M.D.; Mr. Thomas M. Legge, C.B.E., M.D.; Mr. Alan Munby, F.R.I.B.A.; Mr. Alexander Scott, F.R.S., D.Sc.; and Mr. H. O. Weller. The secretary is Mr. C. W. Price, of the Home Office, Whitehall, S.W. 1, to whom any communications should be addressed.

AN enormous amount of wood is wasted in the process of converting the felled tree into merchantable timber. It has been estimated that in the United States alone the quantity of wood waste produced annually in the saw-mill amounts to 4,000 million cubic feet. Much of the wood at present wasted could be utilised for such purposes as the manufacture of paper pulp and the production of turpentine, acetic acid, and other products. The question has received consideration in New Zealand, and it has been suggested that the waste, in some instances, might be used for paper-making in place of imported wood-pulp. In order to ascertain the suitability of certain New Zealand timbers for this purpose, an investigation has been conducted at the Imperial Institute, the results of which are recorded in the current number of its quarterly "Bulletin." It was found that the timbers examined could all be used for the manufacture of paper pulp, but whether such an industry would be profitable in New Zealand would depend on purely economic factors, such as the quantity of waste wood available, its cost at the pulp-mill, and the price of fuel, chemicals, &c.

THE City Engineer for Cork (Mr. Delany), in the course of a report to the Cork Reconstruction Committee, recommends "That all new building restorations or alterations to buildings within the area ought to be so designed and constructed as to secure proper amenity on the frontage of the street on which such buildings shall abut, and where there is, in the opinion of the Corporation and their official advisers, any tendency to incongruity in the external design, irregularity in the line of frontage, or want of harmony in the materials proposed to be used in external front walls, all reasonable amendments shall be made in the plans and designs which, in the opinion of the consulting advisers, are desirable. Any difference or dispute on this point may be settled by arbitration, the Corporation appointing the City Engineer or some person nominated by him as arbitrator, and the building owner an architect on his behalf. The Corporation ought, according to circumstances, to endeavour to facilitate reconstruction by waiving or relaxing by-laws where feasible or desirable. If, after the expiration of two years, the rebuilding or restoration of a destroyed premises has not been commenced, or, if commenced, has been left unfinished, the Corporation may acquire the site in question by such a form of procedure as may be laid down or based on some precedent."

Competition News.

THE Royal Institute of British Architects have been informed by cable from New Zealand that the New Zealand Institute of Architects consider the conditions of the Auckland (New Zealand) War Memorial Competition very unsatisfactory, and that they are negotiating for their improvement. It is hoped that the combined efforts of the R.I.B.A. and its Allied Institute will secure the satisfactory amendment of the conditions. In the meantime members are warned to take no action with regard to the competition until the conditions have been brought into accordance with the R.I.B.A. Regulations. The Society of Architects also request members not to take part in this competition without first ascertaining from the Society that the conditions have been approved by the Council.

THE assessors appointed by the War Memorial Committee of the Ministry of Agriculture to adjudicate on the competitive designs for a memorial to those members of the staff who died on active service during the war have selected the design of Mr. H. Duncan Hendry, A.R.I.B.A. The competition was limited to the staff of the Ministry, and there were seventeen entries. Mr. Hendry is one of the Ministry's superintending architects under the land settlement scheme. He has returned the prize to the Memorial Fund, raised by subscription among the staff. The memorial, which has been approved by the Office of Works, will be erected in the entrance hall of the Ministry's new offices at 10 Whitehall Place.

Garden Village in Concrete Blocks.

THE Government's change in front in the matter of national housing is leaving many schemes derelict all over the country. Those are fortunate which can claim to have carried even part of their original plans to completion. This applies to the garden village of Cubley, high up on the Yorkshire hills overlooking Penistone, where the first contract for ninety-four houses has just been completed by Messrs. John Laing & Son. Designed by Mr. Herbert Baker, F.R.I.B.A., collaborating architect with Sir Edwin Lutyens for the new capital at Delhi, before the Ministry of Health types became more or less compulsory, the houses have a distinction of their own sadly lacking in the familiar blocks of uninspiring cottages now dotted up and down the country. Cubley was originally planned for Messrs. Cammell Laird, whose steel works at Penistone absorb the bulk of the population of that town, and who need considerably more housing room for their workers than is at present available, even with the section of Cubley Garden Village just completed. When the Ministry of Health Act came into operation the local council agreed to take over the Cammell Laird scheme, and a second instalment of fifty houses was projected when the drastic change in the Government's housing policy left this second instalment, like many similar plans, in the air. Messrs. Cammell Laird are ready to give the site to the council free of cost if the proposed houses are erected in conformity with the garden village scheme, and the lay-out has been formally approved by the council. Here, however, for the time being the matter remains.

The surveyors for the Cubley Village contract are Messrs. Deacon, Son & Addiscott, who acted in the same capacity for the Chepstow scheme—one of the finest examples of housing for the working classes completed since the war. Like those of the Chepstow Garden City, the Cubley cottages have not been roughcast, but left with the concrete showing on the external walls, the "Venetian" texture given to the face of the "Winget" blocks being in every respect admirable.

Larger rooms are provided than in most of the Ministry of Health types, and the architectural treatment furnishes further proof—if proof be still needed—that cottages of concrete blocks can be made as attractive as those of any other material. The Cubley cottages, indeed, with their unaffected variety of styles—well-proportioned gables, and wide sweeping roofs brought down in some cases to the first floor level—will bear comparison with any similar scheme in the kingdom.

THE Halifax War Memorial Committee on Tuesday last selected the design of Mr. H. Scott Davies, of South Yardley, Birmingham, for the war memorial cenotaph proposed to be erected in Belle Vue Park, Halifax, at a cost not exceeding £2,000.

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VOL. CVI.—2752. THE ARCHITECT SEPTEMBER 16, 1921.

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The Care of Ancient Monuments.

THE recommendations of the Ancient Monuments Advisory Committee, which advise the granting of additional powers for the preservation of ancient buildings, both secular and ecclesiastical, appear to be generally welcomed by the Press, which in this matter may, we suppose, be taken as being representative of public feeling. It seems doubtful whether such further powers can be regarded as an unmixed advantage, and whether the danger of interfering with private rights has been quite sufficiently considered. There is, to our mind, a very dangerous tendency in much of our recent legislation—that of attempting to find cheap and easy ways of obtaining what we want, assuming that the end justifies the means. To those who have not, it may seem right and proper to control the actions of the fortunate possessors of what we are not prepared to purchase with public money, but to us this attitude seems wanting in honesty. The recent agitation over the proposal to demolish some of the City churches appears to us to be a case in point. The ecclesiastical authorities may have dropped their proposals because they were uncertain of their legal rights; and, if so, they acted rightly. They may have felt that a case was made out which convinced them of the beauty and value of the churches condemned; and, if so, they were again right. In the third case, they may have come to the conclusion that, although they had legal and moral right, and had genuinely come to the conclusion that the threatened churches were not worth retaining on æsthetic grounds, it was better to yield to pressure; and in this case we hold they acted both wrongly and ill-advisedly. Popularity is an uncertain thing, and not worth purchasing at the sacrifice of conviction. We have a similar case to deal with in the wider question of the maintenance of ancient buildings. We have first to determine whose "image and superscription" is upon them. If that of the nation, the nation has a right to deal with them as it likes, but if they are the property of individuals we claim that the nation should exercise no rights which it does not acquire by purchase or by consent. We claim that Hatfield House is as much the property of the Marquess of Salisbury as the smallest cottage in the land is the property of the man who has built it and left it to his son. Taking an extreme case, and assuming that the demolition of either were desired by its owner, we claim that the nation, as represented by a public authority, has no right to interfere; but only, should it deem such a step advisable, to purchase it at a fair market value for the nation. No great edifice of public rights can be securely based on public wrongs, and we see every day the evils wrought by theories coined for purposes of expediency, but which we know, if we think a little, are inherently unjust. The Rent Restriction Act, and the policy of the Government in respect to railways, are cases in point; and by such Acts the public conscience is hypnotised and public morals degraded. We have as sincere a wish as the most ardent reformer that what is historically and æsthetically valuable should be preserved, but we would sooner see every record of past times obliterated than that flagrant injustice should be done.

The great houses of England would never have been built had not their owners believed they were free to do as they liked with their own, and we in our generation cannot expect men to be willing to expend money in erecting great buildings if we show at the same time a disposition to exercise public control over private property. The country is full of great houses which have been handed down from generation to generation, often despite of commercial considerations, of families which have given employment to their tenantry for hundreds of years and who still try to do so. They, and not the State, have created what we call heirlooms of the past; it is not for the State to dictate how and in what manner owners, whose ancestors have created what we now value, should deal with their property. There are clauses in the Committee's recommendations which are calculated to obscure the main issue. "The State should agree to advance money to owners for repairs at a low rate of interest." This sounds liberal, but when we see that it is coupled with the power of the State to prevent a man's dealing with his own property as seems to him best, the liberality of the clause is not apparent. "A central body of paramount importance might be set up to decide on the making of preservation orders in the case of monuments in danger of damage or destruction." This naturally gives away the whole case. Henceforth those who covet Naboth's vineyard can obtain the control of it on the pretext that it is of national importance.

In the case of ecclesiastical buildings "advisory bodies should be formed in each diocese, and the authorities of the Church should formulate a scheme for the legal protection of cathedrals and churches." As we read this it means that a body outside the Church would have the power to dictate to the ecclesiastical authorities as to what they should or should not do.

"With regard to secular buildings, the scope of the Act should be extended to cover buildings in actual use subject to the payment of compensation to owners." What does this vague statement mean? If the meaning is that the State should have the power to acquire such buildings at their market value, we are satisfied; but the word "compensation" may mean this or something absolutely inadequate, and we should be sorry to see such wide powers granted to any body without more exact definition.

We have several facts to bear in mind: the first that the State, overburdened as it is, has not the means to preserve numbers of great buildings now in private hands by purchase; the second that it is not always desirable that we should preserve buildings indefinitely when the purposes for which they were erected have passed away; the third that it is doubtful whether much good will be served by the

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indefinite creation of what would constitute unused museums; while lastly, if we look at the natural and automatic process by which a greater value is put on the works of the past, the trend of public opinion and of private intelligence, we may rely on the preservation of a great part of what we have inherited from the past without giving wider powers to the Department of Public Works, whose activities are so incessant in our midst. After all has been said, a greater monument than any fashioned from stone by craftsmen is the great heritage of English liberty, for which generations have striven, and no fraction of which we wish to see surrendered or placed in the keeping of any department of the State.

Illustrations.

BURTON-ON-TRENT GIRLS' HIGH SCHOOL COMPETITION. Design by A. W. S. Cross and K. M. B. Cross, Architects.

This design consists in the main of a two-storeyed structure enclosing that portion of the site which is suitable for building purposes on its north, south, and east boundaries. The front block, facing east, contains the centrally placed principal entrance whence direct access is obtained to the assembly hall and to other rooms intended for administrative purposes placed upon the ground floor. As to the school entrances, that for the junior school is placed in the south block at the extreme end of the main corridor of the front building, and that for the seniors in a corresponding position in the north block. The cloak-rooms, lavatories, and changing rooms are readily accessible from the school entrances. Provision is made on the ground and first floors of the south and east blocks of buildings for sixteen class-rooms, each planned for thirty pupils, of which five are grouped together on the ground floor upon the sunniest side of the site to form the junior school. The art and science rooms are upon the first floor, and the gymnasium on the ground floor of the north block. In order to provide efficient cross ventilation to the class-rooms, the corridors, wherever possible, are treated as open arcades, but if preferred the openings could be filled in with windows in the usual way. The architects are A. W. S. Cross, M.A., F.R.I.B.A., and K. M. B. Cross, M.A.

ALTERATIONS TO A HOUSE AT NOTTINGHAM. Messrs. Niven and Wigglesworth, Architects.

Notes and Comments.

The Birmingham Civic Society.

The Birmingham Civic Society is a far more influential and important body than many similar societies. In the first place the relations between the Society and the municipal departments of the city are closer and more sympathetic than is usually the case, a result brought about by the skilful manner in which they have been approached by the architects, and also to the existence of a public spirit in the councils of the city. The Society have also had a fund of some £15,000 placed at their disposal by the Trident Trust for expenditure on public improvements. Out of this fund they have purchased Daffodil Park for £631; while the Trust itself bought land at Kings Norton for £4,093 to carry out a scheme recommended by the Society, and they are now negotiating with the Corporation as to the improvement of the junction of Pebble Mill Lane and Pershore Road by the formation of an elliptic circus, surrounded by trees, and the formation of a more dignified approach to the Park, near which it is proposed to form a Children's Pond and Gardens. This scheme is illustrated in the Report. The Northfield scheme in the Lickey Hills is another of the public schemes which the Society is to bring up, and which forms the subject of a special booklet, which we have already noticed. Such a list of actual achievements forms a striking record for a young society, which we are glad to see devotes itself mainly to schemes which are not too large to render them feasible. There can be little doubt that this is the best way to acquire influence, which dies away when large schemes, the accomplishment of which is difficult, are urged by small private societies. The good work done is largely due to the untiring efforts of Mr. William Haywood, who has so earnestly devoted himself to matters affecting the improvement of Birmingham.

The Housing Question in Sweden.

We have before us an interesting report on the housing question in Sweden, published by order of the Swedish Government, and recording experiences which are not unlike our own in a modified form. What seems to have happened in many countries is that sections of the community have slackened the efforts made by them in normal times, relying on the *deus ex machina* of the State, only to find in the end that the aid invoked cannot fill in the gap. As Mr. Hoover bluntly told the nations, "Europe must work or starve," and what is true of nations is true of the various strata of society of which they are composed. There is no great bottomless purse belonging to the community on which all can draw, but every section of the community in a civilised State can, by effort, obtain a maximum of production out of which it can, with greater or less success, supply its own needs. No Government can provide or create wealth, and the less we have to pay for the necessary duties of administration, the more there is for every class to spend on its own wants, and the richer the State, which is formed out of the aggregate of its inhabitants, will be. These facts are, unfortunately, better recognised in Germany, Belgium and France than they are here, but until the great truth is manifest to all sections of the people we shall complain of the "hard times" which are inevitable for those who defy economic laws.

Building Restrictions in Chicago.

We are glad to note that the referee in the Chicago building trades dispute has made an award which is warmly welcomed by the business community. The wages of all ranks of workers have been reduced from 10 per cent. to 30 per cent., this, of course, being a matter affected by local causes which may or may not be similar to those prevailing here. But it has been decided:

1st. Where a sufficient number of union men cannot be obtained non-unionists shall be employed.

2nd. All restrictions on daily output are to be removed.

3rd. Unions must allow jobs occupying not more than thirty minutes to be performed by men of other trades where instance of a man of a special trade being employed causes unnecessary waste of money.

These three awards are indisputably sound and in accordance with common sense, and it is to be hoped that similar principles will be adopted here, as they will do much to remove friction and to promote the prosperity of the building trade.

How to Write a Book.

Among the best series of books which have ever been produced on a technical subject is the series of little illustrated books on French Furniture, published by William Heinemann, and sold at the small price of 4*s*. 6*d*. In the last volume which has reached us a translation is given of Roger de Félice's work on French Furniture under Louis XVI. and the Empire, and within the limits of 133 pages, accompanied by some 99 pages of excellent illustrations, we are given a complete and graphic account of a most

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interesting and much admired phase of decorative art. Many of our costly illustrated works, heavy and ponderous in size and most expensively produced, are almost valueless compared with such a work as this, for the text the value of which should be great is often mediocre and of little value. There is, too, a disposition both among authors and publishers to deal too ponderously with a subject. For example, we have reproductions of some tattered manuscript of slight importance, reproduced with Chinese-like accuracy. We may pick up the biography of a famous man, and be given an illustration of his washing book or dog; indeed, the chief object aimed at in some books seems to be the spinning out of irrelevant detail. What can be better and more to the point than this passage in the Introduction of the book we write of: "In this volume Empire furniture will occupy much less space than Louis Seize. It may be enough to say that, in our opinion, this inequality is amply justified by the difference in merit, comfort, and adaptableness to the needs of ordinary life which exists between the two styles; but there is one more solid and positive reason. The aim of this handbook, like its predecessors, is to impart a better knowledge of the furniture of past times, but, most of all, to the furniture that was simple and practical; the good, honest pieces with no pretensions to sham luxuriousness belonging to the modest middle classes, or even the country people of old France." Here in a sentence is the analysis of a trained expert, with a knowledge of his subject; no inclination to spin out detail which has neither true relevance nor value to anyone.

Britain's War Debt to America.

WE have received a short and extremely well-expressed pamphlet "by an American-born citizen," to which we feel it best to refer, for, though the matter discussed is not technical, it lies at the root of the industrial complications which every country is facing with more or less difficulty. As it expresses the views of an American, we cannot be blamed for suggesting a course which we believe to be the wisest and best for everyone. After making an extremely generous acknowledgment of Great Britain's task in the war, and stating that America came into the war knowing that if the Allies were beaten her turn would come next, the writer concludes by saying:—

America has all the gold of the Allies. One would think she would be in a superior position to capture the trade of the world, but, as often happens in obscure economic problems, she has as much unemployment as Britain, and as much difficulty in getting export trade. The fact is Central Europe has no money to purchase, and no credit—mistrust rules, and the whole world is at a deadlock. The economic recovery of the European Powers is absolutely essential to a restoration of general stability in the world's trade.

The key of the whole position is one we Americans do not like to face, but it will gradually dawn on us, and the sooner we see it the better. It will be forced upon us by circumstances beyond our own control, and we will do so, not through any philanthropic motives, but merely in our own interests, and that is to cancel the debt owing us by the Allies. In doing this, we will only be doing our fair share in the war. The world is impoverished and cannot buy, except at a low price—heavy taxation increases the cost of living and prevents manufacturing down to this price, therefore there can be no trade until the different countries can buy and sell to one another. Get rid of the war debt both in America and Britain—and it is the only way out. A general cancellation of all war debt, to and by all the Allies seems to be the only solution of the present deadlock. It will pay America handsomely to get rid of the War debt of the Allies, and be the best investment she ever made, both commercially and morally. For one of the Allies to profit at the expense of the others is unthinkable.

Let America lead the way and act up to her high ideals. As an act of justice to the world she should bear her fair share of the war debt, but apart from an act of justice I fear the economic position will assert itself and force her to act in defence of her own trade and position in the world, by the only dignified course open to her, namely, cancelling the Allied war debt.

It is dangerous to prophecy but in years to come if this course is taken America may be glad she did it, while if she does not, we may bitterly regret it. It is more essential to our interests in America to have the friendship of Britain and other English-speaking countries, than it is to Britain and her Dominions to have ours.

The world is finding out that all will suffer until a nearer approach can be made to pre-War values in exchange; that, political theories notwithstanding, labour suffers by giving an insufficient output for high wages; and that the prosperity of nations cannot be attained on a foundation of the ruin of others.

"The Architect" Fifty Years Ago.

SEPTEMBER 16, 1871.

ART has nothing to do with Party Politics. This is a proposition too plain to require any argument. In these ingenious days of Battles of Dorking and Coming Races it is not impossible to conceive of a condition of public affairs in which the case might be otherwise; when Sculpture might be a Tory abuse, and Painting a Whig enterprise; the Institute of Architects an aristocratic stronghold, and the Society of Builders' Foremen and Clerks of Works a Radical caucus; but up to the present year of grace nothing of the sort has been dreamt of, and the wildest vagaries of political art-critics have never gone beyond the harmless limits of the opinion attributed to Mr. Beresford Hope that the London sewers ought to be of Gothic design (a principle, by the way, very easily defended), or the view expressed by Mr. Ayrton that the practical purpose of *art*ists is *art*fully to rob the exchequer of the realm. We are therefore as yet in that condition of comparatively Arcadian simplicity in which Art has absolutely nothing whatever to do with Parliamentary Parties.

At the same time it is equally true that parliamentary discussion governs all, and means to continue, most emphatically, to govern all—Art included. We ought perhaps to qualify this expression so far as to exclude the artistic undertakings of private individuals; but when a noble lord who builds a new town house is pleasantly reminded in the course of debate that it is *not* considered to be an improvement to the locality it adorns, it becomes questionable whether even this qualification is strictly essential to accuracy. Public undertakings, however, can be in no doubt; and whether the subject be a statue, a picture, a building, a bridge, or a street, there will be certain honourable members of the Lower House of the Legislature at any rate (even if the Upper House should continue for ever to hold itself superbly aloof from such trifles) who must be permitted to persist to the uttermost in the free expression of their intelligent opinions, for the irritation of their colleagues and the benefit of their country.

Architectural Students' Fancy Dress Ball.

A GREAT fancy dress ball is being organised, for the opening of the season, by the students of two of the Royal Academy Ateliers—the Society of Architects' Atelier and the Architectural Association Atelier.

The Ball—which will be on the lines of the Chelsea, the Three Arts, and other well-known festivities, will take place on the night of November 4 next, and for the occasion the Royal Institute of British Architects has lent its fine Galleries at No. 9 Conduit Street, W. 1.

Various "stunts" are being organised; amongst others, it is announced that "half-masks will be worn until midnight, when, upon an explosion signalising the death of Guido Fawkes, each person will remove his or her partner's mask." A very jolly evening is promised, and all who have experienced these joyous Students' revels will keenly look forward to it.

All the profits derived from the dance will go to the funds of the Ateliers concerned, to be employed in the improvement and advancement of architectural training in this country.

The supply of tickets is limited, and early application should be made to the Organising Hon. Secretary, Captain M. G. Kiddy, 28 Bedford Square, or to the Secretary of any of the professional bodies. The price of tickets is fifteen shillings, including refreshments, and tickets at a specially reduced price are available for bona-fide architectural and art students.

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Studies of the English Sculptors from Pierce to Chantrey.

IV.—Caius Gabriel Cibber (1630-1700).

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THE FIGURES OF MELANCHOLY AND RAVING MADNESS. By CIBBER.
(As originally placed over the door of Bedlam.)

UNFORTUNATELY for us the dramatist, Colley Cibber, in his amusing and interesting autobiography, tells us next to nothing about his father, and singularly little is known of the life and character of the sculptor, though much new light has been recently thrown upon his work by the researches of Mr. Harald Faber in his "Danske og Norske in London," Copenhagen, 1915. Born at Flensborg in Slesvig in 1630, Caius Gabriel Cibber was the son of the cabinet-maker to the King of Denmark, who, discovering somehow that the youth showed talent, sent him to Rome at his own expense to study sculpture. How long he remained there is not known, but he was certainly in England before the Restoration—"came into England the year or thereabouts before the Restoration," as Colley Cibber told Vertue—in the employment of John Stone, youngest son of the more famous Nicholas, whose foreman he became—his right hand also, to judge from the tradition that, when Stone was struck with paralysis in Holland, Cibber was sent out by the family to bring him home. Stone died soon after the Restoration, and Cibber set up for himself in a handsome house in Southampton Street, becoming eventually Carver to the King's Closet, and being widely employed both as sculptor and architect. A fortunate second marriage—he had no children by his first wife—with a lady of the ancient Rutland family of Colley brought him a good dowry and a number of children, the eldest of whom was the dramatist Colley Cibber. His popularity increased, and he found many patrons, including the first Duke of Devonshire, for whom he did much decorative work at Chatsworth, "in the year of the Revolution" (Vertue), some of the bills for which are given by Lysons, including statues of Apollo and Pallas and much carving in the chapel, as well as "the two statues over the Altar, one being Divine Grace and the other Divine Justice" (Vertue), and some stately marble doorways which won the admiration of Gray. (This fact has so far escaped Cibber's biographers; Gray's account will be found in a letter to Wharton dated December 4, 1762.) Cibber, moreover, adorned the Old Royal Exchange with a series



THE FIGURES OF MELANCHOLY AND RAVING MADNESS. From Bedlam Hospital
(Reproduced by permission from an Article by HARALD FABER.

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THE BLIND BAGPIPER, WELCOMBE, WARWICK.
By CIBBER. (From a photograph lent by HARALD FABER.)

of statues of the Kings of England down to Charles I., the commission being given him through the Earl of Manchester, and with a figure of Sir Thomas Gresham, its founder, still to be seen at the New Bailey; he further won the friendship of Wren, who employed him to execute the huge relief of a phœnix over the south door of St. Paul's, with its double allusion to the rising of the new cathedral from the ashes of the old and to the fragment of an old tombstone brought to Wren and bearing only the prophetic word *resurgam*; also the great bas-relief on the west front of the Monument, some decorative work at Trinity, Cambridge, and the Danish Church in Wellclose Square, in which he and his second wife were buried. The monument was destroyed when the church was demolished, but the four wooden statues of Old and New Testament saints by him still happily survive, and have been admirably published by Mr. Faber. He also executed a famous fountain in Soho Square, consisting of a statue of Charles II. surmounting a group of figures forming the base and representing four of the chief rivers of England: Thames, Severn, Tyne, and Humber; the pediment, representing the Triumph of Hercules over Envy, and much other stonework at Hampton Court. Nor must we omit the bas-relief upon the Monument, of which Vertue says that "Time (the god Chronus) is represented raising the City (Ye Dea Londinia) out of ruins . . . with the best of the kind in all the City." Incomparably more important than any of these works, most of which were executed in freestone, is the superb Sackville monument at Withyham, Sussex, which stands in the centre of the Sackville chapel. The recumbent figure of Thomas Sackville, youngest son of the fifth Earl of Dorset, is surrounded by figures of his family, some of them added while or after the tomb was being erected; the contract for it is dated 1677, and the work cost £350. The portraits are singularly fine and bold, and the marble treated with a freedom very rare in English sculpture of the period, and strongly suggestive of the best work of Stone, but with a broader inter-Renaissance touch; the mixture of dignity and realistic detail is highly characteristic, and the whole is nothing short of admirable. The monument to Lord William Russell at Chenies has also been attributed to him. The delightful statue of the Bagpiper and his Dog at Welcombe, Warwick, the first notable example of *genre* in English sculpture, and the bust of Devereux, Earl of Essex, are other good examples of his work. Very different, both in design and character, are the most famous of Cibber's works, the stone figures of Melancholy and Raving Madness originally set up over the portal of Bedlam, in 1680, then in Moorfields, and now, after a sojourn at South Kensington, removed to the Guildhall Museum, where the coat of arms executed by Cibber for the Hanseatic League in 1670 is also to be seen. These works have never lacked appreciation. Pope, in his bitterest attack on Colley Cibber, refers to them with admiration as the "works of his fam'd father's hand"; Roubiliac "never left the city, when he went there to receive money, without going round, sometimes considerably out of his way, to admire them"; and if Nollekens declined to see their beauties—and indeed the bold carving "direct from the stone without any previous drawing or model whatever," was entirely contrary to his own methods of handing over his rough work to be carried out by his assistants—they were long one of the sights of London. Their surface was reverently restored by a sculptor so considerable as the younger Bacon in 1812, but they were at some period coated with black paint, to their great detriment, and cleaning is urgently required. That they were considered by contemporaries his greatest works is proved by an unpublished note in Vertue's MSS.: "Mr. Cibber carved the two mad figures on Bedlam gate, one raveing and the other melancholy mad, also one of the marble Vases at Hampton Court. He was a gentleman-like man and a man of good sense, but died poor, left a



STATUE OF WILLIAM OF WYKEHAM, WINCHESTER.
By CIBBER. (From a photograph lent by HARALD FABER.)

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SACKVILLE TOMB, WITHYHAM, SUSSEX. By Cibber.

son a player"—a passage which proves how completely out of the world was Vertue's life, since for one person who knew Cibber the sculptor, fifty must have been familiar with the "player" and playwright his son.

The composition is obviously derived from Michael Angelo's tomb to Duke Lorenzo de Medici, and the worst that can be said of them is that the unlucky and insecure angle at which the originals are lying is exaggerated, owing to the more sharply-broken pediment on which they are placed; but in spite of this defect the figures, one of which is said to have been modelled from the mad porter of Oliver Cromwell, are extraordinarily impressive. The chained figure on the right, with open mouth and snarling lips, is about to yell in his agony; that on the left is vacant, hopeless, paralysed. Both lie upon straw mattresses, with contorted limbs; both are in the grand manner, though the scale is much below life size; both exhibit the great mind of the sculptor, who, at a time when lunacy was a show and idiocy a source of heartless amusement, could perceive their tragedy and represent their saddest aspects with a pathos unequalled in art, save in the most pathetic scene of the "Rake's Progress" sixty years later. The excellent William of Wykeham at Winchester, presented by the sculptor on his second son's election to the foundation, is unique among his works: the Oliver Cromwell probably resembled that of the Earl of Essex, but was in marble, not stone.

The style of Cibber, it may be said at once, was founded on the great Italians. We have already seen their influence in the Sackville group at Buckhurst, and it is obvious, though apparently unnoticed, that the fountain in Soho Square, with its four river gods, was based upon Bernini's fountains—his masterpieces in that kind—in the Piazza Navona. It was, in fact, the direct fruit of Cibber's Roman days, and it is not a little interesting to learn from Walpole that the sculptor's master, John Stone, made a terracotta copy of Bernini's Apollo and Daphne which was afterwards in the possession of Francis Bird, so that Cibber's Berninesque education was continued after he returned to England. The Melancholy and Raving Madness were, as we have seen, inspired by Michael Angelo, but are works of art as original as Michael Angelo's Dome of St. Peter's, which is known to have been founded upon that of Brunelleschi at Florence. Cibber, in fact, was artist enough to profit by the work of his predecessors, and to leave behind him works which bear the impress of his own mind, but are, nevertheless, founded on the great traditions of the past.

Notes.—For the illustrations Nos. 2, 3, and 4, I am indebted to the kindness of Mr. Harald Faber, whose work on Cibber has been already mentioned. The statue of Sir Thomas Gresham, not hitherto recognised as Cibber's, will be further discussed when we come to John Bushnell.

(To be continued.)

For preceding articles of this series see :—
Introductory Article, July 1;
Nicholas Stone (1587-1647), July 8;
Edward Pierce (ob. 1698), Sept. 2.

Lighting in Factories and Workshops.

In January 1913 the Home Secretary appointed a Committee under the chairmanship of Dr. Glazebrook (now Sir Richard Glazebrook, K.C.B.), F.R.S., D.Sc., to inquire and report as to the conditions necessary for the adequate and suitable lighting (natural and artificial) of factories and workshops, having regard to the nature of the work carried on, the protection of the eyesight of the workers employed, and the various forms of illumination. In 1915 the Committee issued its first report dealing with the general lighting of factories. Further inquiry was then postponed till after the war. In November 1920 the Committee resumed its inquiries, and in January 1921 Mr. C. Dampier Whetham, F.R.S., was appointed Chairman in succession to Sir R. Glazebrook, who felt obliged to resign the chairmanship owing to pressure of other work. The present constitution of the Committee is as follows: Mr. C. Dampier Whetham, F.R.S. (Chairman), Mr. Leon Gaster, Sir Richard Glazebrook, K.C.B., F.R.S., D.Sc., Dr. C. S. Myers, C.B.E., F.R.S., M.D., Mr. J. Herbert Parsons, C.B.E., F.R.S., F.R.C.S., D.Sc., Miss R. E. Squire, O.B.E., Sir Arthur Whitelegge, K.C.B., M.D., and Mr. D. R. Wilson, M.A. Mr. J. W. T. Walsh, M.A., M.Sc., and Mr. H. C. Weston, M.J.Inst.E., are Joint Secretaries.

The Committee decided, in the first instance, to consider the conditions necessary to secure suitable artificial lighting, and in the report (which was issued last week) certain requirements are recommended which, if applied to all factories and workshops, will, in their opinion, ensure that artificial lighting shall be suitable for its purpose. They have reserved the subject of suitable natural lighting for further consideration, and propose to report later on this subject.

The first report, issued in 1915, recommended that a requirement in general terms for adequate and suitable lighting be applied to all factories and workshops. The recommendations were expressed as follows:

There should be a statutory provision:

(*a*) requiring adequate and suitable lighting in general terms in every part of a factory or workshop, and

(*b*) giving power to the Secretary of State to make Orders defining adequate and suitable illumination for factories and workshops or for any parts thereof or for any processes carried on therein.

It was further stated that the general statutory requirement of "adequate and suitable lighting" should include the observance of the following conditions:

(1) Adequacy.

(2) A reasonable degree of constancy and uniformity of illumination over the necessary area of work.

(3) The placing or shading of lamps so that the light from them does not fall directly on the eyes of an operator when engaged on his work, or when looking horizontally across the workroom.

(4) The placing of lights so as to avoid the casting of extraneous shadows on the work.

The Committee have now considered the conditions necessary to secure suitable artificial lighting, and the requirements recommended in the present report have been formulated with a view to their inclusion in an Order defining suitable lighting for all factories and workshops.

In arriving at their conclusions consideration was given to the codes of lighting which now have statutory force in many of the American States, and to the recommendations for industrial lighting formulated by the Illuminating Engineering Societies of America and Germany.

In the present report the Committee deal only with the problems of suitable artificial lighting. They have been informed that some misconception and ignorance on these problems exist, and that unsuitable systems of lighting are still common in factories and workshops. This condition has been accentuated recently by the introduction and extending use of high-intensity gas-filled electric lamps, which in many instances are used to replace tungsten lamps in shades and reflectors intended

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for the latter. They therefore take this opportunity of pointing out that, generally speaking, one type of shade is adapted to one type of lamp only, and that, to maintain suitable lighting, change of type of lamp often necessitates change of type or readjustment of the shade.

The requirements of suitable lighting are quite definite: they are absence of glare and of troublesome shadows, a steadiness and constancy of the light source, together with a moderate degree of uniformity of illumination and of surface brightness over the plane of work. The subject is considered in the present report under the following three headings: (1) Glare, (2) Shadow, (3) Constancy, in respect of which definite recommendations are made.

(1) Glare.

In the first report the term Glare has been accepted as covering any of three phenomena, which are defined as follows:

(1) The effect of looking directly at a bright source of light, such as an arc lamp, so that the observer is for the time being prevented from seeing other objects properly. He is temporarily dazzled and his vision is impaired for a short period after the light has ceased to enter his eyes.

(2) The effect which is produced by the presence of one or more bright sources of light towards the edge of the field of vision so that the rays enter the eyes obliquely from them. An observer may never look directly at such sources of light, but he is nevertheless troubled by their presence near to the object at which he is looking. This is the commonest form of glare.

(3) The effect which is produced when the surface of cloth, metal, paper, or other material being worked upon is shiny or polished, and reflects light directly from some source into the eyes of the worker.

All three forms of glare are still to be met with in factories. The possible effects of the first two of these, which are most commonly due to absence of protection or to imperfect protection of the light sources, are twofold. Discomfort may be caused to the worker by the presence of a strong light in or near his line of vision, or a worker or other person entering a room may be temporarily dazzled by the light, so that he is unable to see his way about, and may incur additional risk of accident.

The first essential of suitability, therefore, is proper shading of the light sources. Many types of shades are now in use, and these vary considerably in efficiency. As some definition of the term "proper" shading seemed to be required, the Committee suggest the simple criterion whether the incandescent filament, mantle, or flame is distinguishable as such when viewed through the shade.

So far as glare is concerned, the source need only be screened when in or near the direct line of vision, and then only in the direction towards the eye, and the Committee accordingly considered the framing of a requirement which, without insisting on complete screening of the source, will ensure that no bright surface is visible except considerably away from the usual line of vision.

It is thought that in practice a suitable requirement might be expressed in terms of the distance of the source and of a limiting value of the angle between the line from the source to the eye and a horizontal plane, within which angle no such source should be directly visible. A certain amount of scientific evidence exists as to the most desirable angle for this purpose. In the case of sources used for general lighting, the Committee consider that, for the purpose of a legal requirement, the limiting value of the angle specified should be 20°, but in the case of very near sources, such as are employed for local lighting, this angle is, in their opinion, too small to ensure absence of glare, and an angle of 30° should be substituted.

They accordingly recommend that there should be a provision as follows:

(A) . . . "Every light source (except one of low brightness*) within a distance of 100 feet from any person employed shall be so shaded from such person that no part of the filament, mantle, or flame is distinguishable through the shade, unless it be so placed that the angle between the line from the eye to an unshaded part of a source and a horizontal plane is not less than 20°, or in the case of any person employed at a distance of 6 feet or less from the source, not less than 30°."

The third form of glare (which is common in factories where smooth or polished material is used) is generally caused by unsuitable placing of the source, and may be remedied either by changing the position of the source relatively to the eye, or by increasing the diffusion of the light by enclosing the source in some diffusing material. The Committee suggest the following simple requirement:

(B) . . . "Adequate means shall be taken, either by suitable placing or screening of the light sources, or by some other effective method, to prevent direct reflection of the light from a smooth or polished surface into the eyes of the worker."

(2) Shadow.

Troublesome shadows are frequently to be found even with systems of lighting which are good in themselves. They are generally due to unsuitable placing of the light sources, whereby the shadow of the worker himself or of some part of the plant or material is cast on the place of work, and are particularly objectionable when thrown by some object in motion. Apart from the annoyance caused and the interference with the proper execution of the work, deep shadows, by concealing dangerous parts of machinery, may lead directly to accidents. The Committee recommend, therefore, that there should be a provision as follows:

(C) . . . "Adequate means shall be taken to prevent the formation of shadows which interfere with the safety or efficiency of any person employed."

(3) Constancy.

Constancy in artificial illumination is a matter of great importance. Unsteadiness and flicker have an injurious effect on vision, and, if pronounced, increase the risk of accidents.

Under modern conditions, and with a modern system of lighting, this detrimental factor is unlikely to arise. The Committee advised, however, that there are factories in which old-fashioned batswing burners are still in use (apart from instances where they are deliberately employed for special reasons—*e.g.*, on boring machines), or in which incandescent gas mantles are inadequately protected from draughts. Similarly in some factories which are electrically lighted, flicker and variation in illumination may arise through fluctuations of the voltage available. Such fluctuations may possibly arise through the employment of alternating voltages of low periodicity.

The Committee think that flicker which can be remedied should be prohibited, and accordingly recommend that there should be a provision as follows:

(D) . . . "No light sources which flicker or undergo abrupt changes in candle-power in such manner as to interfere with the safety or efficiency of any person employed shall be used for the illumination of a factory or workshop."

Taking into account that extensive alterations may be necessary in many factories to comply with the requirements suggested, the Committee finally recommend:

(E) . . . "That, as regards existing installations, a reasonable time-limit should be given before the above requirements become operative."

* By "low brightness" is meant an intrinsic brilliance of not more than five candles per square inch.

Mr. Albert Amor, an expert on old china, has been appointed by Royal Warrant Antiquary to the Queen. Queen Mary is an enthusiastic collector of china and furniture. The appointment is the first of its kind.

The Dean of Chester states that only by making a big effort will Chester Cathedral be restored. There are ominous signs and symptoms—big cracks and deteriorating stone. The bells can no longer be rung, as the tower will not stand the strain. The north wall of the nave is in a bad condition.

The Bradford Corporation Cenotaph Committee have finally approved the design of the city architect, Mr. W. Williamson, F.R.I.B.A., for the Cenotaph which is to be erected in Victoria Square, on a site adjacent to that now occupied by the temporary memorial.

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Harrow-on-the-Hill (Town) War Memorial.

THIS war memorial, which has been recently unveiled, has been erected from the design and under the supervision of Mr. W. D. Caroe, M.A., F.R.I.B.A.

It is carried out in Cotswold pea grit stone, which is a most beautiful material quarried at Cleeve and Leckhampton on the Cotswold Hills. Its reputation has been practically local until the time that the quarries were closed down at the outbreak of the War, but it has of late had a very great vogue amongst London architects.

The quarrying difficulties have been very great—an overburden of 60 feet of marl and freestone having to be removed before the stone can be won, and then only in comparatively thin beds. This renders the material somewhat costly, but the delightful effects which can be obtained more than repays the outlay on the block stone.

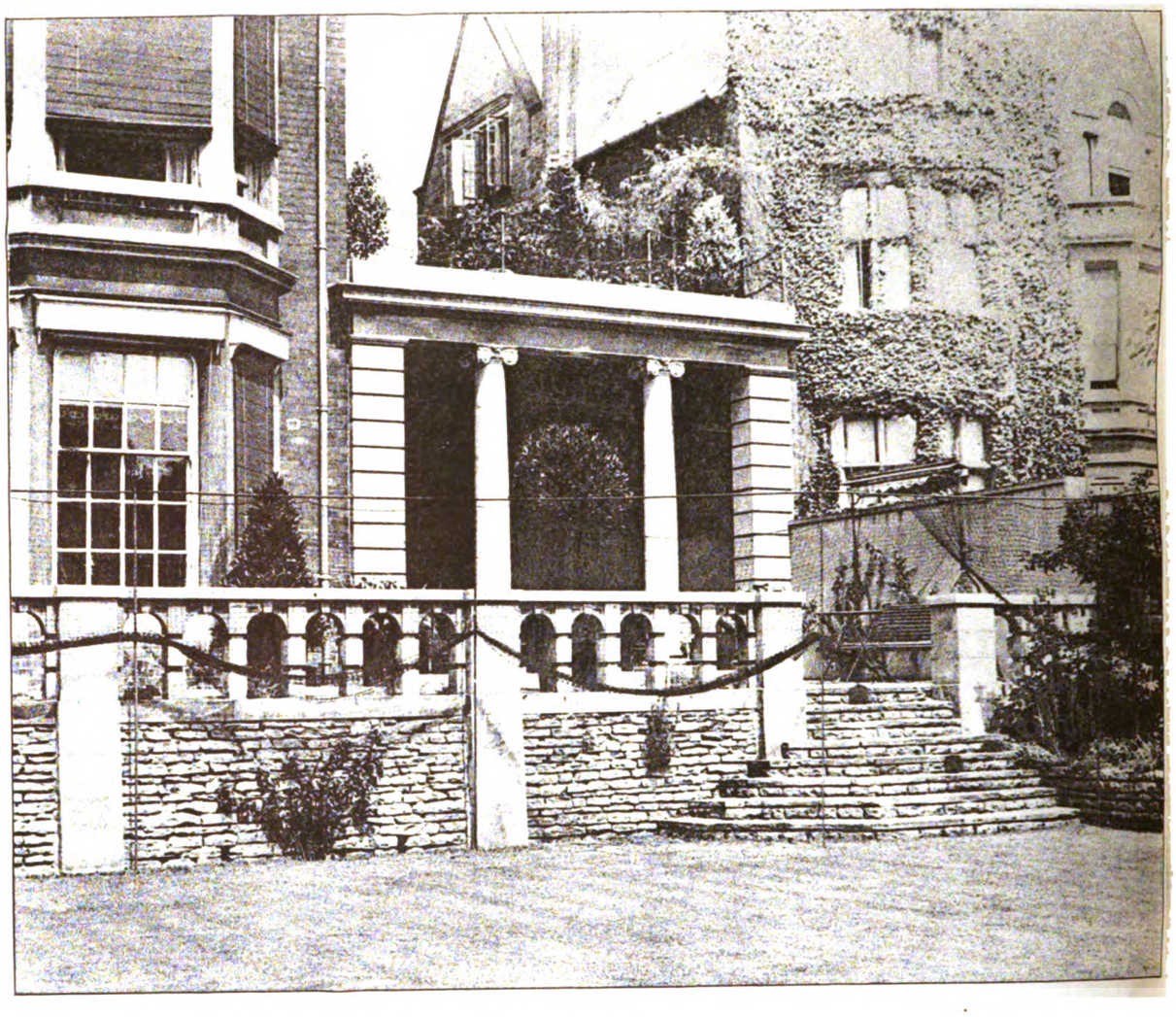
The work was carried out in its entirety by the Leckhampton Quarries Co., Ltd., near Cheltenham, Gloucestershire, who are the owners of the Leckhampton and sole lessees of the Cleeve Quarries.

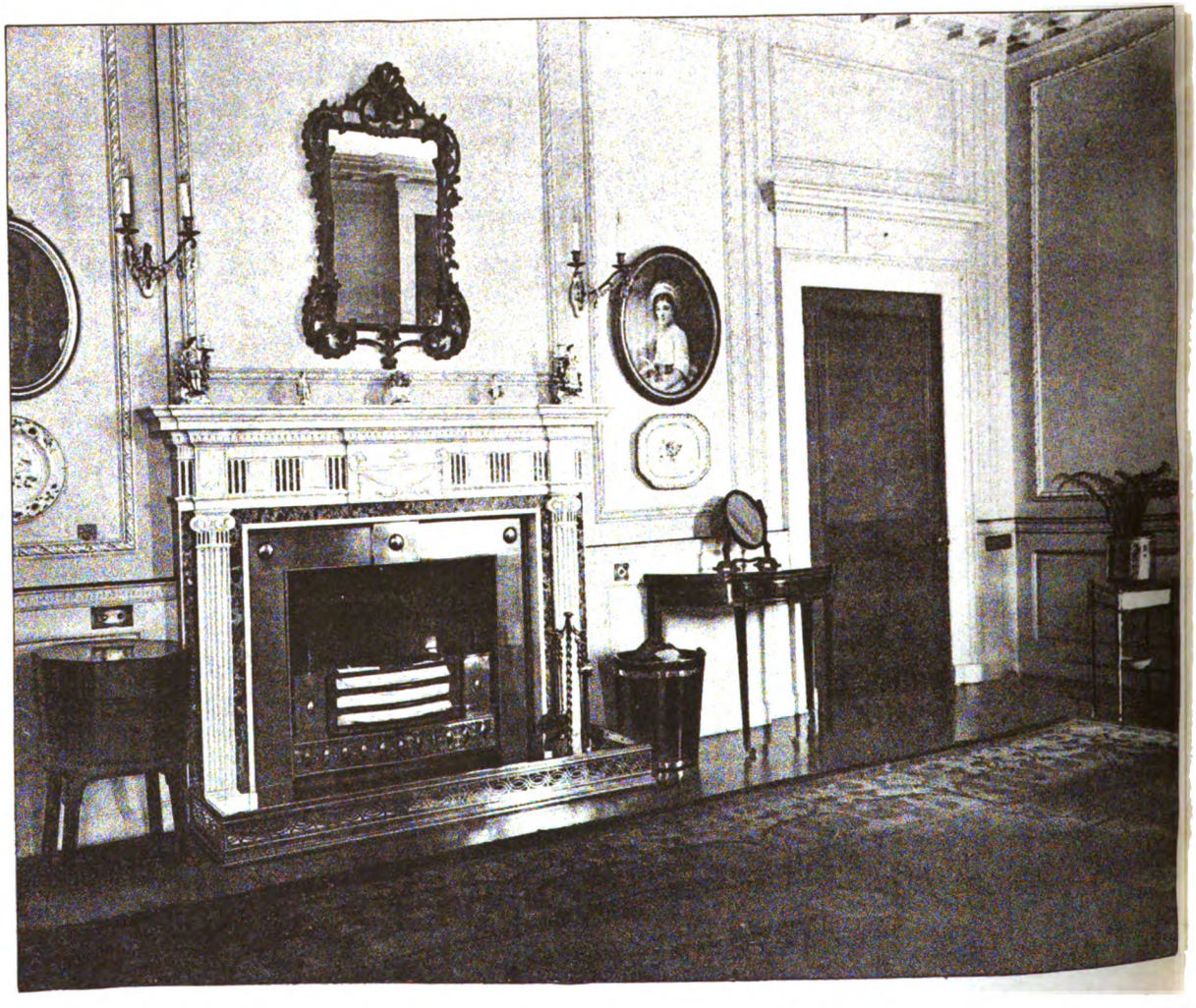


HARROW-ON-THE-HILL (TOWN) WAR MEMORIAL.—Mr. W. D. CAROE, M.A., F.R.I.B.A., Architect.

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ALTERATIONS TO A H

MESSRS. NIVEN & WIGG





SCREENLESS PHOTO PROCESS, SPRAGUE-HAVCOCK (PRINTERS) LTD, 69 & 70, DEAN STREET, LONDON, W.1.

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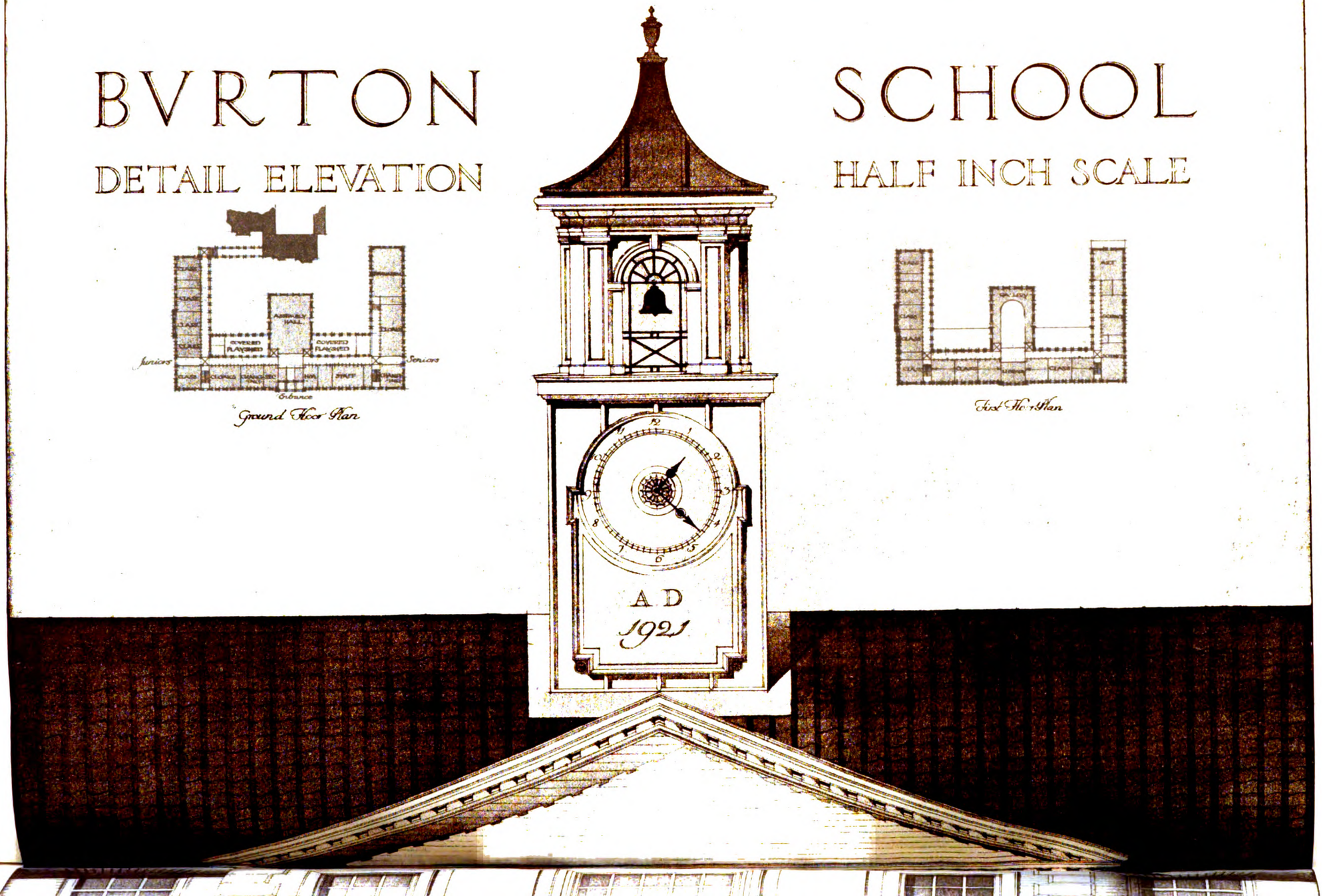
BVRTON SCHOOL

DETAIL ELEVATION

HALF INCH SCALE

Ground Floor Plan

First Floor Plan



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SCREENLESS PHOTO PROCESS, SPRAGUE HAYCOCK (PRINTERS) LTD 69 & 70, DEAN STREET, LONDON W.1

BURTON-ON-TRENT GIRLS' HIGH SCHOOL COMPETITION.

DESIGN BY A. W. S. CROSS AND K. M. B. CROSS, ARCHITECTS

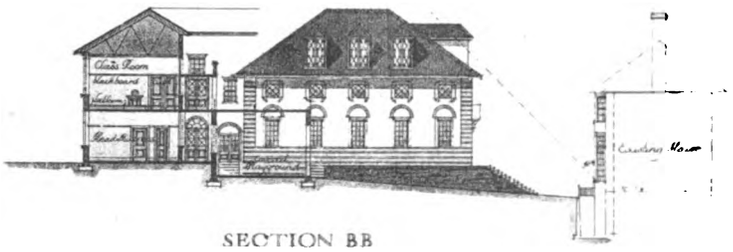
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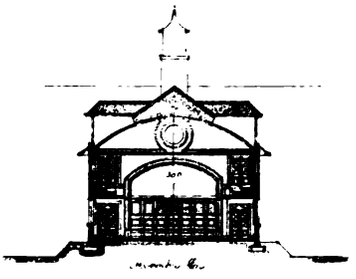
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BVRTON ON TRENT HIGH SCHOOL

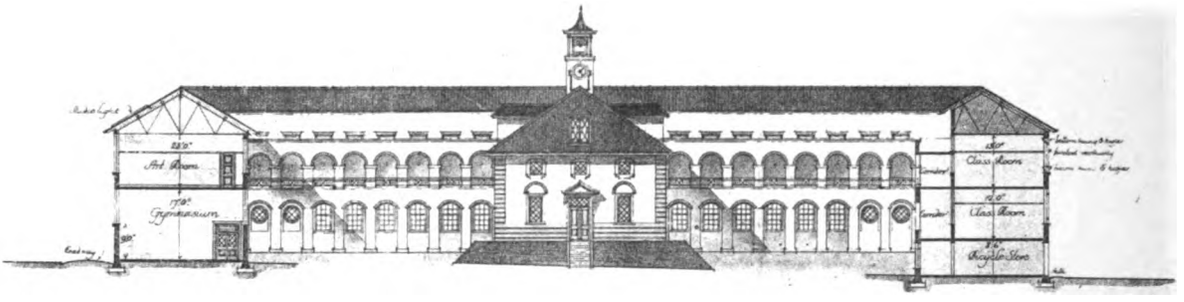
ELEVATIONS & SECTIONS Scale: ——— feet.



SECTION BB



SECTION CC



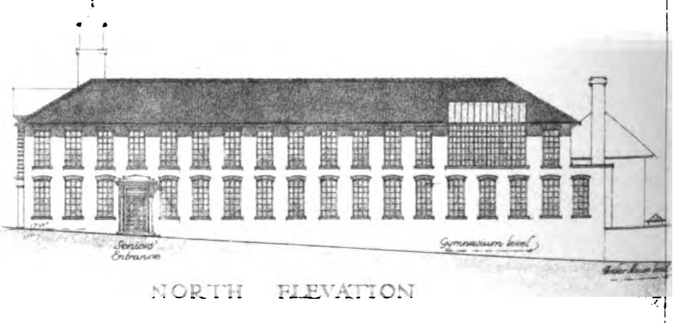
SECTION AA



FRONT ELEVATION



SOVTH ELEVATION



NORTH ELEVATION

SCREENLESS PHOTO PROCESS SPRAGUE HAYCOCK(PRINTERS)LTD 69 & 70 DEAN STREET LONDON W

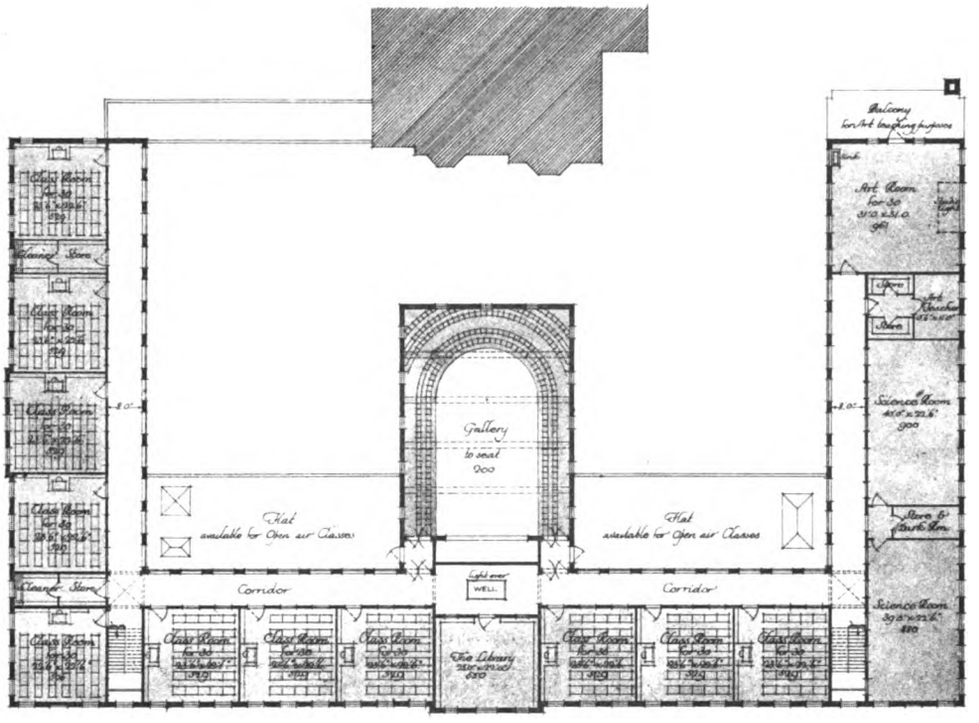
BURTON-ON-TRENT GIRLS' HIGH SCHOOL COMPETITION.

DESIGN BY A. W. S. CROSS AND K. M. B. CROSS, ARCHITECTS

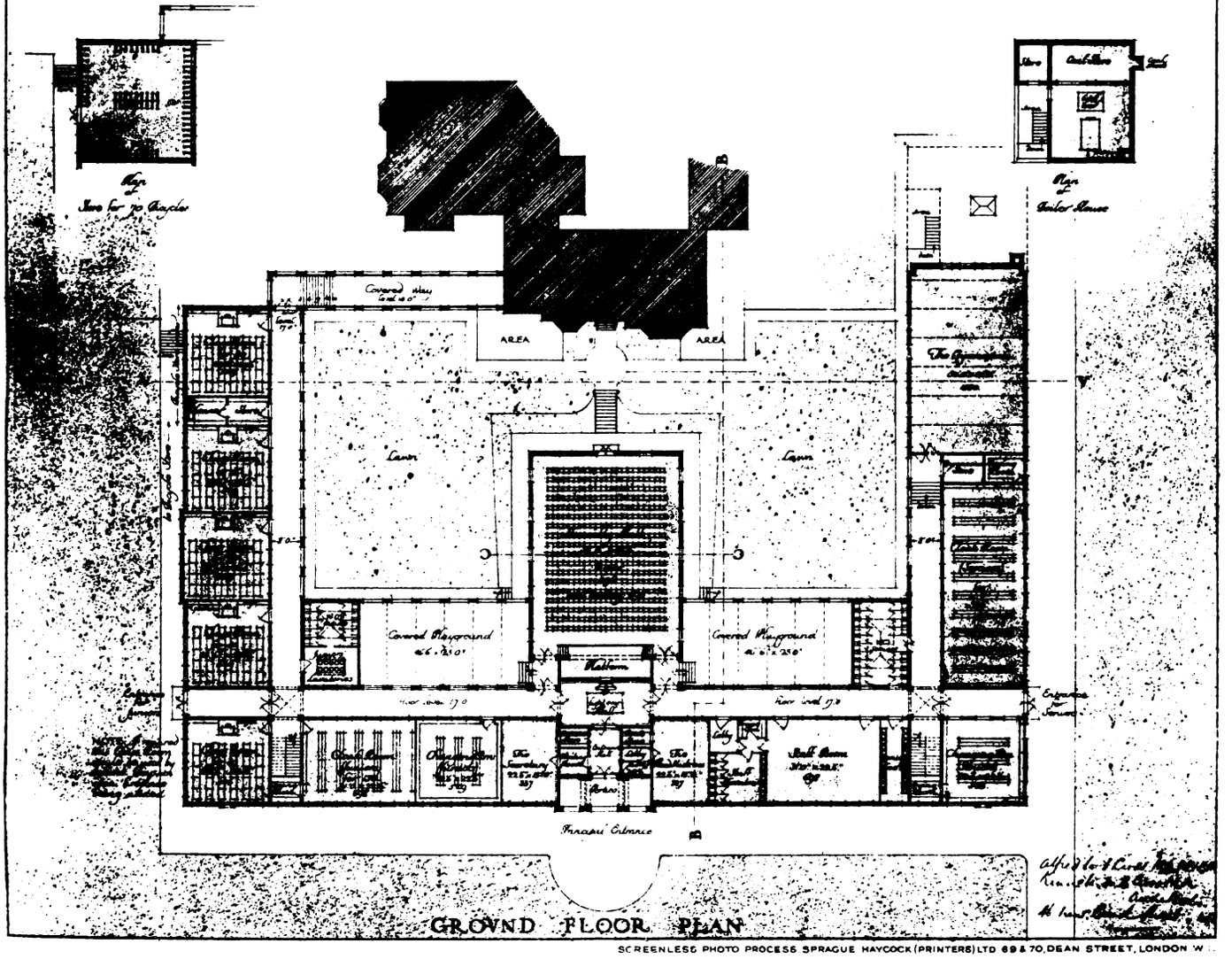
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BURTON ON TRENT HIGH SCHOOL

PLANS Scale of feet



FIRST FLOOR PLAN



GROUND FLOOR PLAN

SCREENLESS PHOTO PROCESS SPRAGUE HAYCOCK (PRINTERS) LTD 69 & 70, DEAN STREET, LONDON W.

BURTON-ON-TRENT GIRLS' HIGH SCHOOL COMPETITION.

DESIGN BY A. W. S. CROSS AND K. M. B. CROSS, ARCHITECTS

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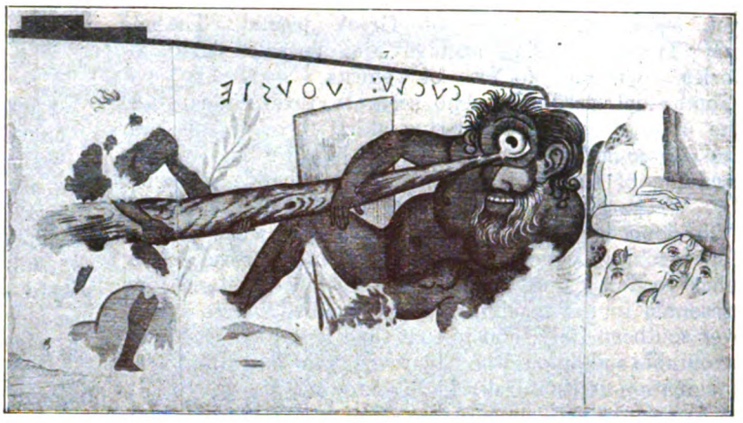
Wall Paintings of the Etruscan Tombs.*—II.

By Selwyn Brinton, M.A.

(*All rights reserved.*)

In last week's notice we left our subject at the point where we had found the spirit of the old Etruscans at work again through the period of the Italian Renaissance, alike in sculpture and architecture, from Nicola Pisano onwards. We may trace this directly in those sepulchral monuments which, in the hands of Tuscan sculptors, form such a notable contribution to Renaissance art; and Dr. Weege compares in his illustrations an Etruscan stone sarcophagus at Corneto with that beautiful recumbent figure of Ilaria de Carretto by the great sculptor Jacopo della Quercia within the Cathedral of Lucca.

The pose of the recumbent figure here may be compared with that of the sarcophagus, while the Renaissance lady has upon her tomb an exquisite relief of "putti" with garlands, and the Etruscan Lucumo has for adornment a combat of Greek warriors and Amazons. The analogy might be carried further in other points, such as the supporting figures of animals, generally guarding lions, which are a feature of the Etruscan and of the Renaissance tombs; and Dr. Weege even suggests that the bronze doors which Camillus carried off from conquered Veii might well have been the work of some Etruscan forerunner of Ghiberti—"One thinks almost involuntarily of the Baptistery of Florence. Might not the city of Veii have perhaps possessed, besides her Vulca, also a Ghiberti to take his place beside that Etruscan Donatello?"



BLINDING OF THE CYCLOPS POLYPHEMUS. ("Tomba dell' Orco.")

Even more important is Möller van den Brock's suggestion that not only the dome of the Pantheon, but also the Cupola of Florence Duomo and the round arch of the Renaissance may have had their origin in the vaulting of Etruscan tombs and the arched entrances of their cities and sepulchres. We may recall here that the round arch appears very definitely in our illustration from an Etruscan urn in the last notice, but on this point I should be inclined to consider that the Etruscan influence, when it reached the Tuscan Masters, came to them through Roman sources.

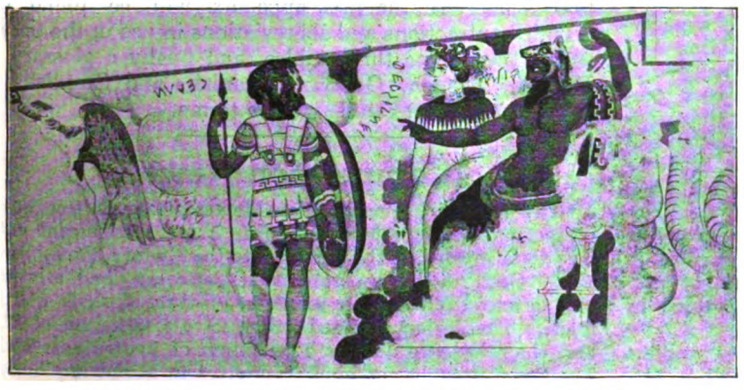
I come now to the tombs themselves and to the life of the people who made them—a people whose origin, like their language, remains a mystery. Sir William Hamilton, in his great work on Etruscan vases, which I am fortunate enough to possess, is inclined to connect them racially with the Pelasgians. "Rich, industrious, and powerful," he says, "they must have held for a long time the helm of the Affairs of Italy, which they occupied almost intirely." The learned husband of the lovely Emma here quotes the view expressed by Dionysius of Halicarnassus, but the problem he attempts remains still unsolved. The great cities of their League were Arretium (Arezzo), Cotrone (Cortona), Perusia, Clusium (Chiusi), Volsinii (Orvieto), Veii, Tarquinii (Corneto), Caere (Cervetri), nearer to the sea, Volaterrae (Volterra), inland, Vetulonium, Rusellae (Grosseto), and Volci. They were a glad people, rich in art culture, fond, it would seem, of the good things of life; the Romans called them contemptuously "obesi Etrusci" (fat Etruscans), and criticised the freedom of their women as compared with their own severer discipline of family life.

"The Etruscan woman! The subject is so full of charm," writes Dr. Weege, "that it claims from us a moment's delay." As in other art so too the Etruscan has busied itself by predilection with woman. Our paintings show us every kind of figures of women, high-born ladies, professional dancers, slave girls, and "hetairæ." . . . As the culture of the body was carried to the highest point, so too were their toilettes of extreme refinement, and could be compared with those of the most elegant ladies of fashion of the present time. Since the ladies of the Court of King Minos in Crete nothing at all to be compared with them had appeared."

These remarks are fully borne out by the wall paintings in which rich costumes are the rule: the dancing girls wear often a cloak, or what we call now a "jumper," with skirts of some diaphanous material. Without doubt, as compared with Roman women or even Greek, the freedom enjoyed by these Etruscans was very great. They appear frequently on the couch, feasting beside their husbands and friends, in the tomb paintings, waited on by draped or undraped slaves of both sexes. Athenæus even calls them terrible drinkers—"*deinas piein*"—though he seems to think them fair to look on. They were permitted, as we see in these same paintings, as spectators to look at not only horse and chariot races, but even the contests of naked athletes, which was prohibited to women in the Greek Olympic contests under pain of death, save only for the priestess of Demeter.

And this glad view of life among the Etruscans had been carried by them into the very paintings which adorned their chambers of the dead. In the "Tomba del Triclinio," amid myrtle trees filled with singing birds, the dancing girls swing their lithe bodies in rhythmic step to the music of the flute: it is of the happy Elysium of the blest, which has been described by the Roman poet, Tibullus—and yet earlier by Aristophanes and Pindar—where the lovers meet again, "juvenum series teneris immixta puellis."

Then suddenly the whole atmosphere of these paintings changes—becomes more tragic, more intense. We see—as in



PLUTO, PERSEPHONE, AND GERYON. ("Tomba dell' Orco.")

* Fritz Weege. "Etruskische Malerei." Mit 89 Textabildungen und 101 Tafeln. Max Niemeyer Verlag. Halle (Saale) 1921.

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our illustration from the "Tomba dell' Orco"—the dark rulers of Hades, Pluto and his Queen, with the dragon form of Geryon in a world peopled by tormented spirits, demons, monsters such as the Polyphemus, whose blinding we see in our second plate; yet again the figures of Greek legend, Theseus and Tiresias, beside strange and terrible devils or furies, winged forms of spirits, good or evil (Tomba del Cardinale) who seem to threaten or guide the human spirit wandering alone through this dim and fearsome underworld. And when we ask for the meaning of this strange and sudden change of spirit Dr. Weege gives us his answer in no uncertain terms. "No doubt can exist," he tells us, "as to what was the new teaching, which forced its way into Etruria, or by what road it came. It was the Orphic Mysteries, as presented in the teaching of Pythagoras, which spread over southern Italy, and in that time found an especially favourable soil among the Etruscans, a people gifted with imagination and naturally inclined toward Mysticism."

We scarcely perhaps realise strongly enough that both in Hellas and Italy, apart from the accepted figures of the gods there was this under-current of mystic teaching, closely guarded from the profane, in which the soul of man, loosed from the bodily bonds, must pass into new forms through æons of time ere it can arrive at final perfection. Dr. Steiner, in his "Occult Science," has in recent times written: "That which is released from the human physical body at death passes through divers states in the future"; and what Theosophy of to-day calls the Law of Destiny or Karma is but a restatement of a doctrine well known to the ancients. Kept apart from the vulgar it becomes revealed to us in these wonderful tomb paintings, which recall in their later phase not alone the glad memories of life, the feast and dance, but also the troubled path of the Spirit in this underworld, pursued by demon forms, helped often and stayed by winged spirits (precursors of those painted in the same land by Gozzoli or Signorelli), till perfected it can reach at last the Soul's eventual calm—the haven of a Divine Union.

Correspondence.

Values in Party-Wall Awards.

To the Editor of THE ARCHITECT.

SIR,—An award made by an eminent architect in a party-wall matter under Part VIII. of the L.B.A., 1894, published by the R.I.B.A. recently as an authoritative opinion, seems to suggest that in payment for the extended use of an existing party wall, the value of the building work should be taken at the price when the wall was erected. This seems to us to be inequitable; and it would obviously be so in the case of a wall erected say, 150 years ago, and such cases are by no means infrequent

Surely the purchasing power of the pound should be the governing factor. It is manifestly inequitable to offer to purchase at pre-war values when the sum so represented has less than half the pre-war purchasing power.—Yours, &c., A. K. BALL & SONS.

[COPY.]

MESSRS. C. F. NORMAN (F) and J. S. Gibson (F) send for publication the award just made by Mr. W. E. Riley (late superintending architect to the L.C.C.) in a party-wall matter under Part VIII. of the London Building Act, 1894. They point out that "in dealing with party-wall questions since the Armistice architects have been confronted with the difficulty of determining whether the owner of a site, upon which he is about to erect a building and proposed to make use of the existing party walls, shall be compelled to pay to the owner of the existing party walls the cost of the wall at present-day prices, or at the price when the walls were erected. The enormous increase in the cost of building since 1914 has rendered it desirable to have an authoritative opinion, for the guidance of property-owners and their agents." The point is covered in the following extract from Mr. Riley's award:

"That the building owners shall be at liberty, subject to the provision of Part VIII. of the London Building Act, 1894, at any time and from time to time, to use the whole or any part of the said party wall for the purposes of any proposed new building, upon first making payment to the adjoining owners of a moiety of the cost and expense of the erection of such portion or portions of the said wall, as they, the building owners, may so desire to use, such moiety to be ascertained by measurement and valued upon the basis of actual expense incurred by the adjoining owners at the time the said wall was erected."

New Books.

"The Electric Lighting of Shop Windows." By G. K. Fletcher. London: Benn Brothers, Ltd. 5s. net.

THE author's idea is to provide "a simple guide for shopkeepers and window-dressers," and in a series of seven chapters and eight diagrams he expounds his views upon the subject. Whilst useful hints are undoubtedly imparted, at the same time some of the contents are as decidedly jejune, and some even debatable. The table on page 8 is one of the desirable features, giving a ready-reckoner for finding the unit consumption on the basis of watt-rating and hours of burning; and perhaps equally useful is Table III. on page 26, which is a ready-reckoner for the total number of hours of consumption, calculated upon the daily and long period burning in combination.

But there is something curious in the estimate on page 28, where Mr. Fletcher suggests that while in the months July to September there would be no artificial lighting up to 7 P.M., as soon as October appears such lighting must commence at three o'clock; the explanation is not to be found in Mr. Fletcher using the October figure as an average, for that is not the case. But speaking generally, chapter VI. is to be regarded as a part of the book to be commended, and so also in regard to chapter IV., dealing with the quality of light required.

The effect of street lighting is insufficiently borne in mind in relation to the individual lighting of shops. On page 13, fourth line from the end, "three times" should read "four times."

"Timber Technicalities." Compiled and edited by Edwin Haynes. London: William Rider & Son, Ltd. 6s. net.

WE are informed in the preface that the original intention was to confine the definitions in this book to terms in use in the timber trade, but that its scope became widened so as to include terms "applied to wood in the growing tree, in its manufactured forms as used in the chief consuming industries, and especially in architecture and building construction. The ordinary commercial and shipping terms in use in the timber trade and in general business transactions are also included." Over two-thirds of the book is devoted to an alphabetical glossary of terms which are defined or paraphrased in a clear and heroicly condensed fashion. There are a few omissions, e.g. rebate (a cross-reference might at least have given to the ten lines devoted to "discount"), binders (for double floors), and block flooring; but they are amply counter-balanced by a host of other words which prove the care and industry of the compiler, who, by the way, is the respected editor of the "Timber Trades Journal." We suspect that his bibliography of timber might have been easily extended to more than twenty-two books. In the first appendix will be found the cryptic contractions and abbreviations in use in the timber trade; then come three tables, and finally a glossary in English, French, German, Spanish, and Swedish of some of the most familiar trade terms.

Competition News.

THE Muirkirk Parish War Memorial Committee invite competitive designs before October 3 for a memorial gateway to be erected at the entrance to the Victory Park, Muirkirk. Cost, including foundation, lettering, and erection, not to exceed £700. A selection of three designs will be made. The design accepted will receive a premium of £15, and the other two designs a premium of five guineas each. The Committee do not bind themselves to accept any design submitted. Further particulars may be had from Mr. F. J. Gordon, M.A., Hon. Secretary, The Schoolhouse, Muirkirk.

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"SAMSON." Drawn by O. Cuningham.

Illustrating the Test of Thrusting Stress.

THE strength of Portland Cement when under a thrusting or crushing stress is regarded as of the greatest importance. In practice, concrete is subjected to very little pulling or tension, but it is generally under severe compressive stress.

In the selection of a waterproofer, it is important to choose a medium which has no deleterious effect upon cement. Portland cement treated with 'Pudlo' Brand cement waterproofing powder has been tested by Messrs. David Kirkaldy & Sons, and their reports show that the addition of this waterproofer slightly increases the compressive strength of the cement. This increase of strength affords valuable and convincing proof that, in addition to fulfilling its functions as a waterproofer, the powder has a beneficial effect upon the strength of the structure in which it is incorporated.

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The Red Triangle Club, Plaistow.



EXTERIOR VIEW OF CLUB.



GENERAL LOUNGE.

Of the countless local war memorial schemes which have been put in hand in all parts of the kingdom, none is happier in conception than the Plaistow Red Triangle Club in Greengate Street, Plaistow. The club was opened by Colonel Will Thorne, M.P., and visited by their Majesties the King and Queen on June 4, the opening day.

The scheme was first floated by a small party of Y.M.C.A. workers in Plaistow. Realising how closely Plaistow is linked up with shipping interests, the promoters appealed to the great shipping companies who gave substantial support.

The building itself, which was erected by Messrs. Holland, Hannen & Cubitts, Ltd., is a structure of reinforced concrete, designed by Mr. T. Brammall Daniel, F.R.I.B.A. The main frontage is executed in high-class brick with terra cotta facings, and is a pleasing departure from the usual trend of modern architectural design. Distinct and separate accommodation for both sexes and all ages is provided, with an arrangement whereby men and women have the common use of certain rooms such as the restaurant, general loungs, cinema hall, and public billiard hall (with eight tables) on the ground floor.

The first floor is reserved entirely for use as a men's club, while the two upper floors are devoted to boys' work and girls' work, with educational, recreative, and physical-culture sections.

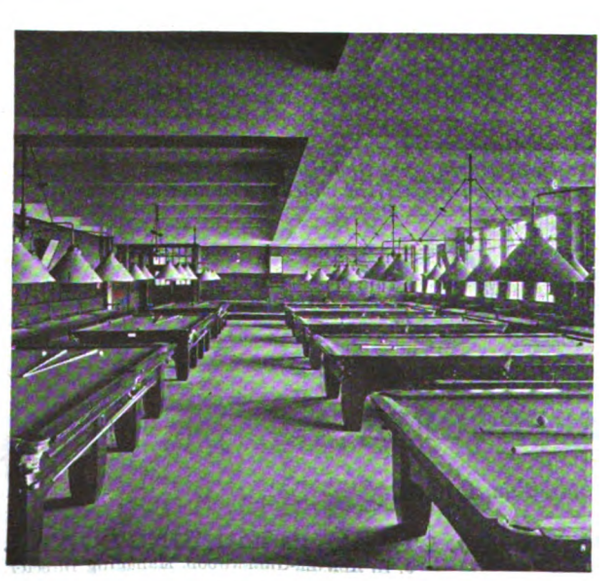
The central hall on the ground floor can be used in connection with any department of the work or can be let without interfering with any of the club activities.

In the semi-basement are two more large rooms with separate access from the street, and these can be used as special lecture rooms or for accommodating lodges or clubs.

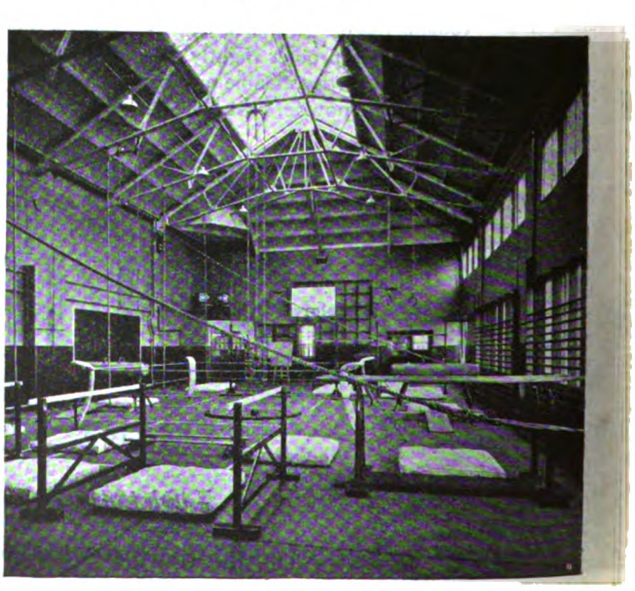
The gymnasium and swimming bath are also so arranged that they can be available for all departments, and at such time they can be isolated from all other sections.

The equipment throughout has been planned on the most modern and comfortable lines. Billiard tables are provided, and the necessary requisites for other games are supplied in the recreation rooms, and the apparatus at the disposal of the physical training director is thoroughly up-to-date.

The electric light installation was designed by the Illuminating Engineering Department of the General Electric Co., Ltd. The semi-indirect system has been largely adopted for club rooms, lounges, and halls. Simple yet substantial bowl fittings manufactured by the General Electric Co., Ltd., are used, provided with "Superlux" diffusing glassware. "Superlux" is a white cased glass having a special matt or "eggshell" finish, and combining excellent reflecting and diffusing characteristics with a very low absorption of light.

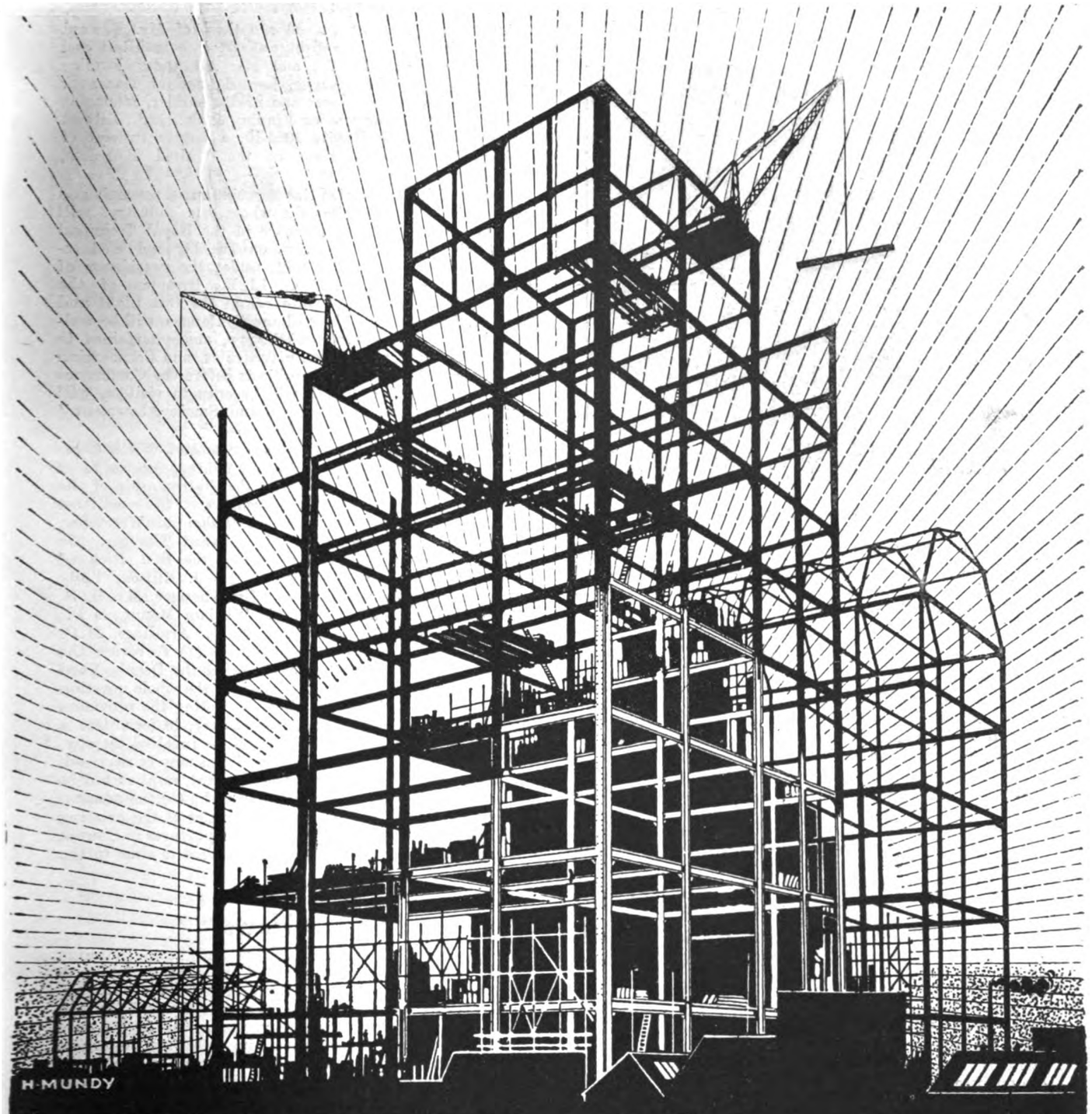


BILLIARD HALL



GYMNASIUM

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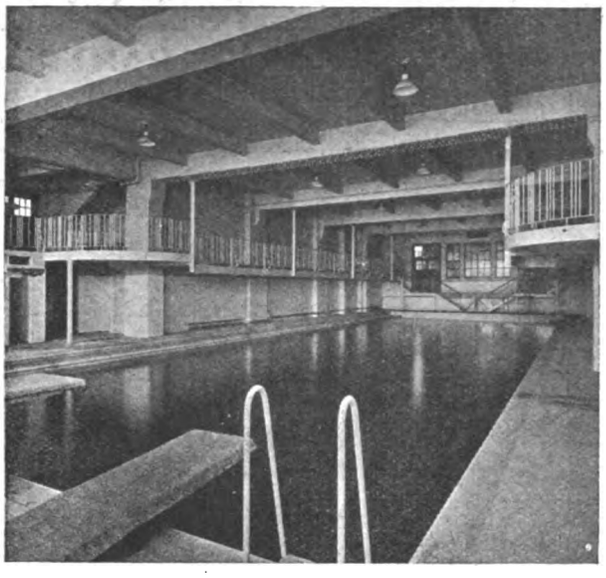
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London City Office:- 3, LAURENCE POUNTNEY HILL E.C.4

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The lighting of the swimming bath and gymnasium is by means of direct-type steel reflector fittings of white vitreous enamelled steel. They are mounted at carefully calculated spacing and heights so that a practically uniform illumination of 3½-foot candles results.



SWIMMING BATH.

Osram vacuum and gas-filled lamps have been fitted throughout. The installation was carried out in a very workmanlike manner by Messrs. Coleby & Co., of 7A Marylebone Passage, W. 1.

General.

MR. GEORGE M'LEAN FORD, F.R.I.B.A., died recently, aged fifty-four, at 15 Stanhope Road, Highgate, N.W.

HIS MAJESTY THE KING has graciously intimated to the Council that he will be pleased to become Patron of the Surveyors' Institution.

THE Birmingham Education Authority propose to provide a new public elementary school for about 800 children at Billesley.

THE North-Eastern Railway Co. are being pressed by the West Hartlepool Corporation to erect a new and more commodious station.

THE Liverpool Tramways Committee has authorised the city engineer to proceed with tramway reconstruction work to the amount of £50,000.

THE Leeds City Council are about to invite tenders for a stone-built club-house on the Roundhay golf course, and other tenders for carrying out the erection of a new office at the Hunslet Cemetery.

MR. GILBERT W. BOOTH, 45-46 Chandos Street, Charing Cross, W.C., is the architect for a cinematograph theatre which it is proposed to erect with a frontage to Frogmore Gardens, High Wycombe. A company is being formed for the purpose with a nominal capital of £35,000.

THE Ramsgate Corporation on Monday last accepted the offer of Mrs. Murray Smith to sell West Cliff House (at one time the residence of the Duchess of Kent and Queen Victoria) and 86 acres belonging to her on the Ramsgate western sea front for £50,000.

THE Principal of the Bezalel School of Arts in Jerusalem, says the "Jewish Chronicle," has acquired a piece of land on which will be built a quarter for the artists. The district will be named after Josef Israels, the celebrated Dutch painter.

THE Bristol Baths Committee recommend the partial completion of the Horfield baths. Commenced in 1914, the building operations were suspended in 1915. It is now proposed to provide a swimming bath, and to add private baths at a later date. The Committee recommend that the contract of Messrs. F. Chown & Co. be accepted for £17,950, which, with £2,500 for engineering items and contingencies, will increase to £20,450, but £15,196 is in hand for the amount previously authorised.

MESSRS. CROUCH & HOGG, engineers, Glasgow, have been appointed consulting engineers to advise the Buckie Town Council regarding a new water scheme for the burgh. The Council have had under consideration an additional supply from Minduff, which would involve about five miles of piping and several dams. The engineers have been given the larger problem of finding an additional water supply in the least expensive method, a commission which does not exclude getting water by boring for it.

AMONG recent wills proved are those of Mr. Edward Fernley Bisshopp, of Ipswich, Suffolk, late architect and diocesan surveyor, £19,417; and Mr. Alexander Findlay (seventy-six), of The Grange, Lanark, and of Parkneuk Works, Motherwell, engineer and bridge builder, managing director of Messrs. Alexander Findlay & Co., Ltd., Liberal M.P. for N.E. Lanarkshire 1904-10, a former Provost of Motherwell; personal estate in the United Kingdom, £30,379.

THE British Commercial Gas Association, a research and advisory body representing the whole gas industry, will hold its Tenth Annual Conference in the Royal Technical College, George Street, Glasgow, on Tuesday and Wednesday, September 27 and 28, 1921, under the presidency of Mr. D. Milne Watson, M.A., LL.B., President of the National Gas Council and Governor of the Gas Light and Coke Co., London. Members of the Conference will be welcomed by the Lord Provost of Glasgow, and entertained to luncheon by the Lord Provost, magistrates, and Corporation of the City of Glasgow. The subjects before the Conference at the public sessions, which will be open to visitors, will be "Gas in Relation to Hygiene and Smoke Abatement" and "The Industrial Uses of Coal Gas."

The newly-formed Church House Site and Works Committee will meet for the first time on Friday, October 7, at Church House, Westminster, under the chairmanship of the Archbishop of Canterbury. The members of the committee are:—The Bishop of Norwich, the Bishop of Worcester, Mr. F. A. White, the Hon. Sir Edward Thesiger, Sir Lewis T. Dibdin, Mr. Justice Sankey, the Hon. Richard Strutt, Lord Wolmer, the Rev. J. H. J. Ellison, Lady Brassey, Lady Grey (of Howick), Miss Thesiger, Mr. B. S. Townroe, Colonel Hall, M.P., Sir William Mount, M.P., the Archdeacon of Doncaster, and Mr. R. Armitage, M.P. The committee's terms of reference are:—(1) To review the scheme of building the Church House on the Dean's Yard and Tufton Street site. (2) To consider the whole question of the completion of the buildings, including the provision of the necessary moneys, and, if necessary, to formulate a plan. (3) To make all necessary inquiries involved thereby, with power to employ such expert advice as may be required. (4) To consider whether any, and if so what, steps should be taken to provide by—(*a*) the alteration of; (*b*) the adaptation of; or (*c*) the adjustment of tenancies of the existing buildings for recent or prospective new departures in Church organisation. (5) And to report from time to time to the Council.

Housing News.

AT a meeting of Dundee Housing and Town Planning Committee last week the question of the quality of Danish bricks for the housing schemes was brought under notice. It was reported that the cost was £5 per 1,000, or £2 10s. less than the British-made brick, when Councillor Archer said an examination of the bricks led him to believe that there would be claims by the builders on account of the extra labour on account of the bricks being in a rough state. The contract was for one million bricks, and two hundred thousand had been delivered. They were not German bricks, as had been alleged, but Danish bricks, and they were unsatisfactory as regards shape and firing, and were not in accordance with sample. All inferior bricks were being rejected. The contract has since been cancelled.

AT the meeting of the Trades Union Congress in Cardiff last Friday the following resolution, moved by Mr. G. Wyver, London (Building Trade Workers), was carried: "That this Congress deplores the statements of the present Minister of Health, Sir A. Mond, in his public declarations that the Government will reduce its commitments to housing, and urges upon the Government the importance of fulfilling the programme as outlined by the Premier and Dr. Addison as being not only desirable but necessary in the interest of the nation's health, also that such houses should be provided at a fair rental." Mr. George Hicks (Building Workers), who seconded, said attempts had been made to put the blame on Labour for the failure of the housing scheme, but these he refuted. He referred to the profiteering which was taking place in raw materials, which were increased 250 to 500 per cent. above pre-war prices, and said this factor was very little appreciated in the country. There were sufficient masons and bricklayers unemployed to build 40,000 houses.

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How to Make Two Ends Meet.

Now that the Government have dropped Housing with a specious explanation and no apology, it remains to think out a policy which will bring the private speculator back to a branch of building which experience has proved he understands a great deal better than any of his critics. The first necessity is, in the cant expression of the times, to produce a "favourable atmosphere." This can be easily defined as depending on an understanding that henceforth no Governments shall interfere in a province where their failure has been colossal; and secondly, that every class in the community must pay for what they require. Much will be effected by the downward tendency of building prices, but this will for a lengthened period leave them high, while we are unlikely ever to see them what they were before the War. But though the fall in prices is now marked, we consider Sir Charles Ruthen's estimate of its amount as shown in housing tenders is unduly optimistic, and if he can prove by facts that in some cases the fall is shown by a comparison of the tenders received to have been what he states, we believe it will be found that he is judging by the statistics of exceptional cases, where the first tenders received have been, from some circumstance or other, unreasonably high.

Still, when all factors have been taken into account, there probably remains a gap which must be bridged over before the speculating builder can be induced to resume work. We may assume that small houses are in many districts badly wanted, and that unless some inducement is given to the speculator they will not be provided by him; and, as we know that the Government scheme has absolutely broken down, we may conclude that houses will not be built. If the builders of such houses were offered either for a term—we will say—of ten years, or in perpetuity entire remission of rates on such property, they would, by a stroke of the pen, have been secured against uncertainty, while the rentals of such houses would be automatically lowered, since they would represent the sole charge to be made. We cannot see that the local authorities would suffer by such a remission, for their position would be exactly the same if no houses were built.

The speculative builder usually needs financing, and in this matter one suggestion may be offered. A very large amount of money has been invested all over the country in Housing Bonds, the subscribers of which have presumably had two objects in view: the first to obtain a reasonable interest on their money, the second to help in providing housing accommodation. We cannot see that these two objects can be better met than by helping to provide the speculator with the sinews of war. The real security should be, unless the investment is unsound, the value of the property so created; and it would appear to matter little by whom the houses were built. A general agreement might be come to as to reasonable conditions on which such loans should be made, and the local authority might in every district decide what applicants should receive loans. More than this, if the scheme was found to work well there is no reason why the emergency system entitled Housing Bonds should not ultimately lead to the foundation of banks created for the purpose of financing the builders of small houses. But decentralisation and the elimination of bureaucratic control should be the keynote of the policy adopted. Each district should settle its own needs, and everyone in that district should be made to feel that the only road to success lay in the application of the principle that no class of the community should be made to pay for the other, but only to provide as far as possible for easing and simplifying the problem of supply and demand.

We do not think that careful analysis shows that the complaints against local by-laws, on the plea that they lead to increasing cost, is generally well founded. By-laws affecting the ratio of floor and ceiling areas of rooms are usually unduly and unreasonably rigid, the prohibition of wooden construction in detached buildings, and a few other matters connected with foundations, and possibly heights of rooms, certainly need amendment, and we should like to see far greater discretionary powers given to the surveyors by local authorities; but, on the whole, most building by-laws are not unreasonable.

Their recent relaxation has in many cases led to the erection of buildings which are neither sound or really permanent, and officials have often found themselves between the devil and the deep sea and forced to permit the erection of what they know should be condemned. Many of the so-called "new materials" will not stand the test of time, though most of them will have a longer life than one which was invented, which began to disappear and disintegrate within a few months of use. We should be almost safe in saying that, had new materials been discovered during recent years, which were indisputably better, cheaper, and more lasting than those we had been using, like the "tank" in warfare, they would by now have met with universal adoption.

We have so far discovered no easy way to the Promised Land, no means of dispensing with sound finance successfully, no means by which we can successfully couple high wages with low production, or put on one side the accumulated experience of many years with regard to our materials. There may be some equivalent in building for the "tank" in modern warfare, but it has yet to be discovered. But one thing most of us have now realised, and that is that the official masquerading as a man of business usually is a sorry and unconvincing actor whom we have by now had quite enough of.

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Illustrations.

WAR MEMORIAL TOWER, LOUGHBOROUGH. WALTER TAPPER, F.R.I.B.A., Architect.

We understand this tower is not to be built at Loughborough, though so described in the R.A. Catalogue.

ILLUSTRATIONS OF BRIDGES. (See Article by CHARLES G. HARPER, pp. 175-178.)

CHAPEL OF THE HOLY CROSS, LIMPSFIELD. J. STANDEN ADKINS, Architect.

Notes and Comments.

The "Daily Mail" Competition.

THE "Daily Mail" has instituted another competition for a labour-saving house suitable for a professional man, the approximate cost of which is put at £2,500, and approximate area 2,650 feet super., including walls. Designs are to be delivered on November 30, and the accommodation is to consist of three sitting-rooms and *five or six bedrooms* [the italics are ours]. When it is considered with the suggestions for the consideration of the competitors the inadequacy of the suggested price becomes apparent. Walls and floors are to have rounded angles—an entirely unnecessary and most expensive addition to the cost of an ordinary house. Floors are to be damp-proof and germ-proof, warm and silent. Why an ordinary good, boarded floor should not suffice is not very obvious, and it is difficult to see how the harassed competitor can be sure that they are *germ-proof*. It is suggested (why we do not know) that the stairs should be of concrete, with a linoleum surface and a hand rail of rounded form. Are not most hand rails rounded? Instead of balusters the stairs should be enclosed by a thin wall, preferably of *transparent material*, the æsthetic horrors of which can be readily pictured, and presumably the *transparent* material, being a thin wall, must be rounded at its junction with each step. The doors should be planned to open flat back against walls. We wonder why? The floor of the bathroom, *unless the bath is completely built in*, should be so arranged that the floor round and under the bath can be completely cleaned and protected from dust. Heating and cooking must, to be in keeping, arranged with the most up-to-date and expensive appliances. *Trolley wagons or tables for serving food or moving dishes and supplies or slides and shutes or communicating apertures should be considered. Hot and cold water are to be supplied in every bedroom.*

We mention a few only of the points to which attention is drawn, and ask whether it is possible in the view of the proprietors of the "Daily Mail" to obtain a house which combines the conveniences of a luxurious club and an isolation hospital for £2,500. We know that such a price will just cover the cost of the simplest house of five bedrooms and two sitting-rooms at the present time, and we feel it well to advise competitors that they are entering a competition for an impossible building. By the time they have satisfied the "Daily Mail" requirements they will probably have designed a house which would be cheap at £4,000. Cheap—that is to say, for the labour which has to be expended in obtaining it; dear to the owner, who will have spent much money in many useless fads.

Most of us know that in clubs, hotels, and liners every possible device for labour saving has been tried and utilised, but we also know that the appliances used are too costly for adoption in a small house, unless it is the plaything of a millionaire. We would ask our readers what real object is served by such a competition at the present time, when those who build are reducing their wants to the simplest elements. It is clear that the maker of any labour-saving luxury will be delighted to see his appliance included in the winning design from which a house is to be erected at Welwyn or "Daily-mail," which is, we believe, the title adopted for the new Garden Suburb, but is the welfare of the average man brought nearer by this? We know that many women and some men will go to see the wonderful house when erected, and will afterwards call on some architect and expect to have these ideas incorporated in a house to be built for an impossibly small sum. Considering what is required, the premiums of £300, £125, and £75 are small. If the "Daily Mail" really obtains what it asks for—a house in which all these conveniences are obtained, with five or six bedrooms and three sitting-rooms, for £2,500—we suggest the premiums should be £3,000, £1,250, and £750, the first award carrying with it the honour of knighthood, for the winner will have earned such a distinction. Meantime we would suggest:—(1) That very little good will be achieved by the competition; (2) that the "Daily Mail" is sufficiently widely known already; and that, thirdly, instead of being one of the countless competitors for the premiums offered, the younger men of the profession should consider whether they have not something better to occupy their time; while, fourthly, the competition might serve as the inspiration for the libretto of a really first-rate comic opera to be performed by the talented members of the Architectural Association just before they disperse at Christmas time.

How to Bleed a Profession.

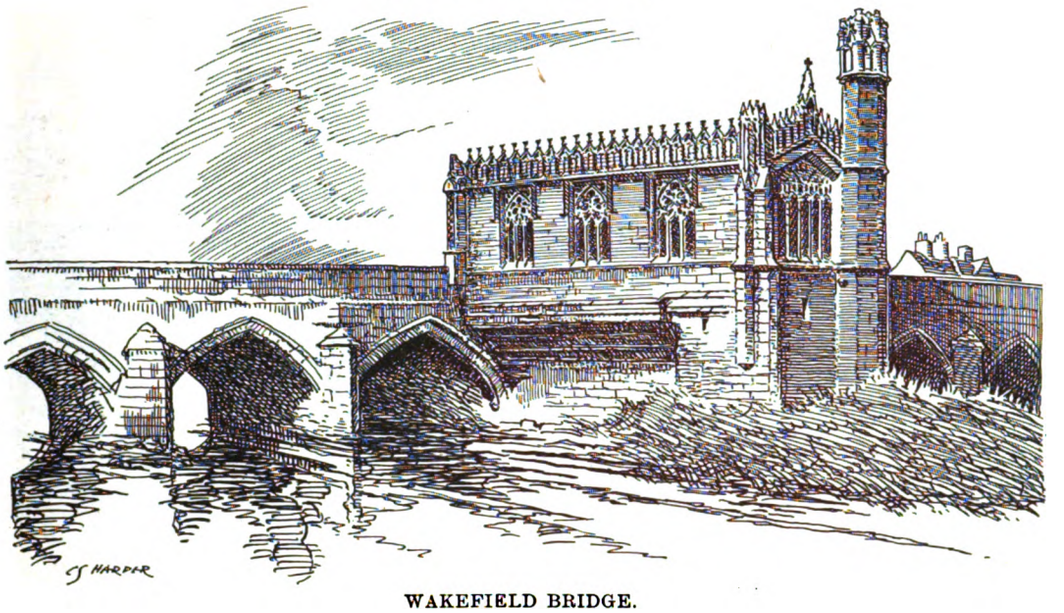
WE have before us an interesting little book, published in America, containing the prize-winning small house plans sent in for a National Architectural Competition, conducted with the approval of the American Institute of Architects, the competition being directed by Henry K. Holsman, the President of the Illinois Chapter of the American Institute of Architects. Twenty-nine designs are illustrated, many of them possessing plans of a high order of merit. The elevations, though marked by a pleasing simplicity, are often a little bald and unfinished in effect. The elimination of fireplaces except in sitting-rooms, and the careful planning of bedrooms are points to be remarked on. But we learn that complete working drawings and specifications of all the designs illustrated have been prepared and will be sold for $25. In discussing these drawings, Mr. Aymar Embury, an architect, writes: "I have never seen more beautiful drawings or better thought-out plans. I believe this competition will solve the housing problem for many people. It has been, and it still is, impossible for the architectural profession to design small economical homes. It would cost us about 600 dollars each to achieve designs such as have been awarded prizes in the competition, and that price is out of the reach of the prospective home owner who plans on spending $5,000 or $6,000 on his home. . . . When the plans are published very excellent talent will be available to the general public at $25 for complete working drawings and specifications on any of these plans." Whether the architects whose designs are thus honoured receive, or do not receive, a royalty on the $25 mentioned, we describe this as bleeding a profession, and question whether it was worth the competitors' while to help the surgeon to do so. In any case, we believe Mr. Embury is wrong. The man who spends any sum on building is well advised to pay an architect a comparatively small percentage for his skill, and can afford to do so; also an architect's supervision surely counts for something here, if not in America. But does the American Institute approve of the surgery to which we have referred?

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Bridges.—II.

By Charles G. Harper.

(See Inset Illustrations.)



WAKEFIELD BRIDGE.

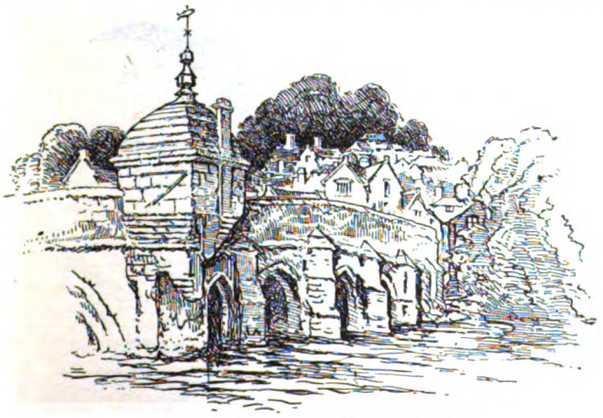
(*Continued from p.* 153.)

MANY of the larger bridges had chapels on them. Such was the chapel of St. Thomas, on London Bridge; and such, yet, are the chapels still to be found on the bridges of St. Ives, in Huntingdonshire, Bradford-on-Avon, Wilts, Rotherham and Wakefield. The last-named is the only bridge-chapel in this country surviving in its religious use. Here the bridge spanning the Calder, built about 1342, remains, although greatly altered. The chapel, generally thought to have been placed there as a memorial of the Battle of Wakefield, is far older; and was, in fact, re-endowed by the then Duke of York in 1398, sixty-two years before that conflict in which his descendant was defeated and beheaded. Unhappily, this beautiful little building was subjected to a so-called "restoration" by Sir Gilbert Scott in 1847. He laid his heavy, hurtful hand upon it, to the extent of building an entirely new front, a copy of the old. His work is itself now dilapidated, and in much worse condition than the old front itself, preserved at Kettlethorpe Hall.

Rotherham Bridge, spanning the river Don, has indeed a fifteenth-century chapel on its midmost pier, but it has long been a tobacconist's shop. St. Ives bridge, across the Ouse, is a fifteenth-century work of the Abbots of Ramsey. Four of its six arches are of that period; the two semi-circular ones date from 1716. The tall chapel-building, which once served also as a guide to navigation, is now a dwelling-house. The old bridge at Bradford-on-Avon was originally a pack-horse bridge of the fourteenth century, but was almost wholly rebuilt in the reign of Charles the Second. The curious little building upon it was anciently a chapel of the long-forgotten hospital of St. Margaret, at the southern approach; but it was entirely remodelled in its present form when the bridge itself was rebuilt. Aubrey refers to its olden condition as "the chapel for masse in the middest of the bridge." It was then used as the local lock-up for petty misdemeanants. It is surmounted by a gilded vane in the form of a gudgeon: hence the local name for the Bradford-on-Avon people, "Bradford Gudgeons"; and hence, also, an old saying, when some petty delinquent had been locked up in this bridge-prison, that he had been "under fish and over water." Such are the little witticisms that enjoy great prosperity in small places!

Harnham Bridge, on the western outskirts of Salisbury, carries the old Exeter Road over the Avon. It is of the fifteenth century, replacing one by Bishop Bingham, in 1244. One of the houses facing the approach incorporates some remains of a bridge chantry. On the centre was once a chapel of St. John Baptist.

Of fortified bridges we have none in this country nearly to compare with that of Cahors in France, and, indeed, only one with its defensible gateway yet existing complete. This is the fine Monnow Bridge at Monmouth. There were several fortified gates to the old town, and what happy chance it was that preserved this does not appear. Its sturdy, ribbed arches may be even so early as the thirteenth century. It is a red-sandstone bridge with heavily machicolated gatehouse. So late as 1839 a use was found for it, on the occasion of a threatened Chartist rising. The neighbouring town of Newport was the scene of an agitation for armed rebellion, and an attack was planned and carried out there. It was a



BRADFORD-ON-AVON BRIDGE.



ST. IVES BRIDGE.

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FRAMWELLGATE BRIDGE, DURHAM.

failure. Twenty-two of the revolutionaries were killed; the rest fled. The ringleaders were arrested and lodged in Monmouth Gaol, and much excited talk was made of rescuing them. The Monnow Bridge gatehouse was therefore placed in a condition for resisting an attack, and was barricaded, and its hoary walls that had hitherto known only arrow-slits were loopholed for musketry. But no assault was made.

In the year 1900 this ancient gatehouse was presented by the ninth Duke of Beaufort to the Monmouthshire County Council. A part of the gatehouse remains on Warkworth Bridge, Northumberland, but all other such defences have been swept away. One of the finest and most romantic scenes in the North is that at Durham, where Framwellgate Bridge crosses the river Wear, beneath Castle and Cathedral, and carries the great North Road out of that city. It is not, of itself, exceptional among ancient bridges, either for size or beauty; but it confers something to, and takes also from, its majestic setting. Bishop Flambard built it, in Norman times, and although altered and repaired late in the fifteenth century, and subsequently, it doubtless retains yet some of its original work. There was once a fortified gateway, but it was taken down in 1760.

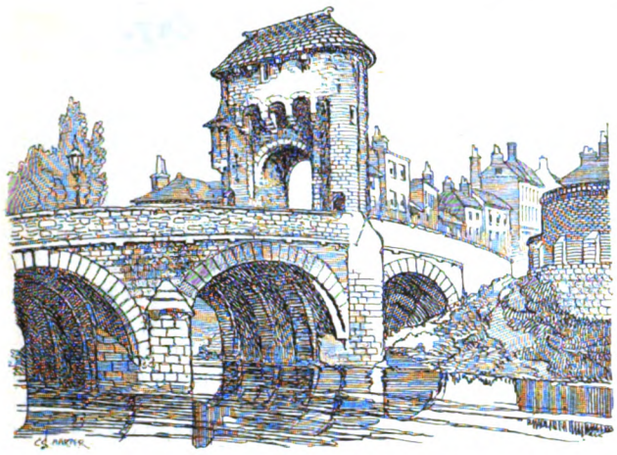
Stirling Bridge was fortified, for the very good reason that whoso held Stirling had the key of the Highlands and Lowlands. All must pass this way, by that castled crag and across the River Forth, which loops astonishingly about the town. Stirling Old Bridge is on the north side. Built about the beginning of the fourteenth century, with bold semi-circular arches, carrying a narrow road, it replaced an earlier building. Protective towers once existed midway, and at either end. It was successfully held in 1715 by the Duke of Argyll, with a force of 1,500, against the threatened advance of the Highlanders. In 1745 General Blakeney, commanding at Stirling, had the southernmost arch destroyed, as a precaution against Prince Charles's clansmen; and the following year it thus became necessary, when the Duke of Cumberland was pursuing the beaten enemy, for his army to cross on planks.

Eamont Bridge, crossing the stream of that name at Eamont Bridge village, conducts the main Lancaster, Penrith, and Carlisle road out of Westmorland into Cumberland. It was built in 1425, and is a fine massive structure, with boldly projecting cutwaters and deep sanctuaries on the piers—always necessary, as the way is narrow, but doubly so since this has become a crowded route for motor chars-à-bancs and tourist traffic to and from the Lakes. Tewkesbury Bridge, of much the same character, is easily old enough to have been used in the bloody battle of Tewkesbury, 1471.



STIRLING BRIDGE.

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MONNOW BRIDGE, MONMOUTH.

General Wade's military roads in Scotland, constructed after the Jacobite rising of 1715, and finished about 1735, were designed alike to bring a measure of civilisation into that then backward country, and to form strategic routes. They were based upon Crieff and Stirling, and in the aggregate totalled some 250 miles. In an unexpected irony of events they served the Highlanders excellently well in the rising of 1745. Before they were made there were no roads at all in those regions. Incidentally to them were made a number of bridges, of which Aberfeldy Bridge, crossing the Tay, is easily the finest. It is of five arches, is 370 feet in length, and is particularly handsome—a far better bridge than under such circumstances might have been hoped for. A Latin inscription placed there by that General and Field-Marshal discloses that he was fully cognisant how good were his works. Englished, it runs thus: "Admire this military road, stretching and on that 250 miles beyond the limits of the Roman, mocking moors and bogs, opened through rocks and over mountains, and, as you see, crossing the indignant Tay. This difficult work G. Wade, Commander-in-Chief of the Forces in Scotland, accomplished by his own skill and the ten years' labour of soldiers, in the year of the Christian era, 1733. Behold, how much avail the Royal Auspices of George II."

Of all the many bridges that once had houses built on them, only two such remain in England; and of these but one is ancient. This is the High Bridge at Lincoln, across the Witham; and the houses are on one side only. The scene below is picturesque. The spot is called,



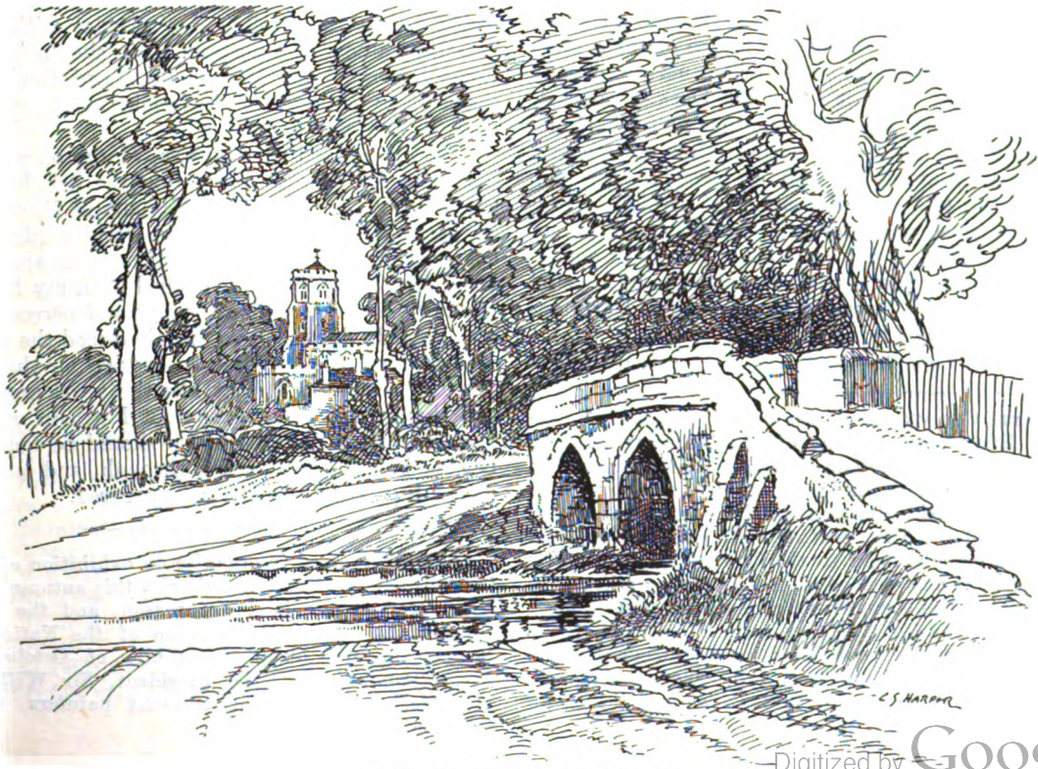
ABERFELDY BRIDGE.

locally, the "Glory Hole," but, however quaint and intriguing it appears in illustrations, it is really a most undesirable purlieu, and is extremely offensive to the sense of smell.

The other example, Pulteney Bridge, at Bath, was built in 1769, and spans the river Avon in three arches. No one passing along Pulteney Street would suspect he were crossing a bridge. It does not appear why this curious revival of an old fashion was made here.



HIGH BRIDGE, LINCOLN.



SUTTON PACK-HORSE BRIDGE.

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When scarce a wheel existed in a whole country locality, when the squire rode horseback and his lady behind him, on a pillion, and when such goods as the simpler needs of bygone ages required were carried on the backs of pack-horses, the "pack-horse road" was a well-known variety of communication. Many are now untravelled and forgotten. They have fallen back into absolute solitude. But the pack-horse bridges in general remain. You must, as a rule, explore diligently to find them. Some, however, are easily come at. What is perhaps the most charmingly situated of all these obsolete bridges is that to be readily found in Bedfordshire. This best-known of its kind is at Sutton, one of the two villages of "Sutton and Potton" which, according to the old rhyme, "John o' Gaunt did give and grant till all the world's rotten." This, as the illustration shows, stands beside a watersplash, which is, as always it has been, the sole means of passage by wheeled traffic. For the very reason of the pack-horse bridge, to permit of the laden horses passing over in single file, caused it to be built of a width not greater than this necessity. No one contemplated, when typical specimens of this kind of bridge were erected, a time when wheeled traffic, demanding at least double the width of roadway, would be common; and thus to have built to a wider gauge would have been sheer waste of energy and expense. It has a cut-water on the up-stream side. Sutton bridge probably is of the fourteenth century: a two-arched structure, of steep pitch and built of irregularly-sized stones, rich, dark-brown sandstone. It is, or was, maintained by the "Marston Charity," of unknown age or origin, which provides the modest sum of £22 per annum, derived from the rent of adjoining lands. One-third of this income goes to the schools of Sutton; one-third to the married poor of the parish, as "head-money"; and the remaining third to the upkeep of the bridge.

Moulton pack-horse bridge, in the region of Newmarket, is in these times rather an ironical-looking affair. It is somewhat shapeless, and it spans a gulley which rarely contains any water: in this respect not unlike the old pack-horse bridge at Charwelton, near the source of the river Cherwell.

Through Selworthy, in Somerset, goes an old pack-horse road, descending to Allerford, where it crosses the brawling stream called the Horner, said to derive its name from the Norse "Hwrnr"—the Snorer—from the purring sound made by its waters among the pebbles and boulders. Here an ancient bridge of this type crosses it, in one bold arch. Another, and finer, but not so well known a bridge is close at hand, in the dim recesses of the Horner Woods. The hamlet of Post Bridge, on Dartmoor, takes its name from a curious bridge of three piers of unmortared granite blocks, with a long narrow granite slab for each span. By it the East Dart is crossed. Near by is the modern (but yet a century and a-half old) bridge carrying the coach-road across what once was a ford. The marvel-mongers, who are ever ready, long ago set afoot the tale that the old Post Bridge is prehistoric. In a sense not intended, that may well be so, for the building of it is not recorded. But it is not an ancient British work: just a pack-horse bridge of unusual style: a style obviously imposed by the native Dartmoor boulders and longstones lying to hand.

(To be continued.)

SUNDERLAND CORPORATION has been promised by the Ministry of Education a grant of £23,100 towards their scheme for converting Langham Tower, a large residence in Ryhope Road, into a training college for teachers, with Ashburne, another residence, as a hostel for women students. The grant is equal to 75 per cent. of the cost of the scheme.

AT a public meeting held in the Town Hall, Lochgelly, on the 16th inst., it was decided to proceed with a scheme for a war memorial. The committee's recommendation to erect a cenotaph at Lochgelly Cemetery with a portion of the funds, and to keep the remainder as a nucleus for the original idea of an institute and hall, was unanimously approved. Powers to carry this through were left with an executive committee.

Art News of To-day.

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THE opening this month of the London Salon of Photography, which is now holding its twelfth annual exhibition at the Old Water Colour Society's Galleries in Pall Mall, is the occasion for presenting to the London public a very interesting invention, which may prove to be of considerable use to students of sculpture. This "Photo-sculpture," which after two years of experiment has been perfected by Mr. H. M. Edmunds, of Brighton, consists of the mechanical translation of the photographic image into carved relief by means of the camera and optical projector. In place of the ordinary lantern-slide an accurately drawn spiral photograph on a sheet of plate-glass is used, this spiral, in form like the groove of a gramophone record, being projected and focussed upon a plane surface at a distance of about 10 feet from the lens. The process is somewhat complicated, but there seems nothing to prevent a photographer of ordinary knowledge from making the photographic record, which can then be used for the graving machine, and direct replicas in relief be made and reproduced.

The question naturally follows as to how far this purely mechanical but most ingenious process will really help modern sculpture, especially, of course, in that fascinating art of bas-relief. It has been suggested—I think very fairly—that educationally it may prove of very great service: "too few of our sculptors think in terms of relief. Too many modern reliefs are conceived in the round, then flattened out to a certain extent, and stuck on a flat background." The new invention may give a mechanical preparation which might be specially useful in portraits, though it could never equal the creation of the artist's brain and hand. The Salon itself is very successful, notably in the contributions of Leonard Moore, Blake, Francis Jay, Bertram Park, and the Earl of Carnarvon, and there is less fake-work this year: but we reserve a detailed notice for next week's Galleries. The same remark will apply to Mr. Gregory Brown's interesting exhibition of landscape posters and working sketches now on view at the Burlington Galleries in Green Street.

Near these at the Leicester Galleries there was opened on September 13 an exhibition of the work of a distinguished Italian sculptor, Signore Riccardi, whose bust of Frederick Delius has been purchased for presentation to the nation by Sir Joseph Duveen. This exhibition has aroused a good deal of interest, and was visited last week by the Italian Ambassador with Signora De Martino; among the portrait busts shown being those of Lady Lavery, Lady Michelham, Lord Buckmaster, and that above mentioned of Frederick Delius, which we shall describe in detail later.

We understand that Messrs. Hampton and Sons have just sold for private occupation the delightful house of the late Sir Laurence Alma Tadema in Grove End Road, St. John's Wood, with its old-world garden and studio designed by the artist himself, which appeared in his painting (Opus CCCXIX.) called "In my Studio." The whole house was of great beauty and personal inventiveness; and Rudolph Dircks has described the stairs of burnished brass, the aluminium covering for the dome of the studio "reflecting a light like the pearl grey of dawn," and the windows of transparent Mexican onyx. It had been suggested that the house should be acquired for the nation, but this scheme fell through, and an appreciative owner has now at length been secured. S. B.

IT was intended to organise an exhibition of Elizabethan portraits at the Grafton Galleries this autumn, but this has been reserved for a future season, and the time will be occupied by a second exhibition of the National Portrait Society, opening about the middle of October, at which Mr. Augustus John, the president, Sir William Orpen, Mr. McEvoy, and other eminent painters will be well represented.

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Correspondence.

The Prohibition of the Use of White Lead.

To the Editor of THE ARCHITECT.

SIR,—I find it somewhat difficult to understand the attitude adopted by Mr. Jennings in criticising my article "Rubbing Down of Paint."

He ridicules the suggestion as to rubbing down old paint with wet pumice on the grounds that pumice always is used wet. Of course it is. And "dry rubbing down relates to the use of sandpaper and that only." Exactly. And my suggestion was that wet rubbing down should supersede dry rubbing down for the class of work referred to. In support of this suggestion I quote the following from the Report of the Home Office Committee of 1911 (Analysis of Evidence Cd. 7,882) p. 83. "It is already the practice of many house painting and decorating firms to have the rubbing down of old paintwork done with pumice stone and water instead of dry sandpaper, and the witnesses practically all agreed that for this operation the use of dry materials could be discontinued." I am, therefore, not alone in making this "glaring error," as Mr. Jennings describes it.

And, talking of "glaring errors," surely Mr. Jennings must be aware that there are light mineral oils (such as were used in the experiment referred to) which are quite as volatile as turpentine—and much cheaper.

Again he falls foul of my suggestion that the danger from dry rubbing down of old paint might be increased by the abolition of white lead, quoting the statement and distorting the reasons given in support. It is very easy to pick holes in any argument by adopting this method of attack, but may I remind Mr. Jennings that it is a method usually adopted by those who are constrained to make the best of a weak case.

Finally, Mr. Jennings arrives at the deduction that I am the writer of both the articles he criticises so severely. As he is entirely wrong in this supposition I will leave your other contributor to speak for himself if he thinks it worth while.—Yours, &c.,

"THE WRITER OF THE ARTICLE."

SIR,—Your correspondent, Mr. Arthur S. Jennings, in commenting on my recent communication "A Paint Feud Revived," described it as "inaccurate and biassed." The article in question was an appeal for good sense and mutual respect in the white-lead controversy, so if it is in fact inaccurate and biassed I stand convicted of a fault.

But who is this Mr. A. S. Jennings who makes the accusation? He is the editor of "The Decorator," a publication which backs the alleged "efficient substitutes" which the International Labour Office cites as suitable to take the place of white lead. One expects impartiality and accuracy in editors, if not in correspondents. But what is this editor's record? One item will suffice to show. In a letter to the "Master Builder" of September 3 he says, "According to official reports, 427 painters died from lead poisoning in one year." *The figures are those not for one year, but for a period of fourteen years*—namely, 1900 to 1913 inclusive—and are given as such on p. 75 of the Report of the Departmental Committee (Cd. 7,882). This Report, I may add, itself affirms (p. 79) that "the rates of deaths and attacks due to lead poisoning among house painters are thus comparatively small."

Is this the sort of pabulum which the editor of "The Decorator" serves up to his readers? No doubt he will seek to fasten the error upon that long-suffering scapegoat—"the printer." But it is too complex to admit of so facile an explanation: it is too palpably the product of a mind that looks not before it leaps.

At the best, therefore, this is a case of the pot and the kettle; and a moment's attention to his concluding remarks will show that if, indeed, in his eyes I may resemble a kettle, Mr. Jennings himself is most certainly a pot.

I affirmed that the prohibition of white lead would not eliminate painters' sickness. Mr. Jennings replies that "no one ever thought that it would." What it will do, however, he says, is "eliminate painters' illness from lead poisoning." (He means, of course, eliminate lead poisoning from painters' illness—but an ungrammatical construction of this kind does not matter in an editor.) The point of my letter, and I challenge Mr. Jennings to deny its force, is that since the International Labour Office was set up for the express purpose of improving the conditions of the worker it is reasonable to expect a more statesmanlike proposal than that before us. The Labour Office has confounded sickness from other causes with sickness from white lead, and the public is justified in demanding that before it launches proposals which would wreck a British industry, while fostering a foreign one, it should at least understand the subject with which it proposes to deal.

Mr. Jennings quotes me as saying that the proposed prohibition will "increase the cost of painting to the property-owners and others," and retorts that it will "do nothing of the kind," quoting figures showing that "dry white lead" costs more per ton than zinc oxide and lithopone. One might comment, to Mr. Jennings' discomfiture, on these figures, or at least on the way in which they are employed, but that is perhaps superfluous after the foregoing sample of this gentleman's arithmetic.

But his point about the first cost of the pigment misses the mark. What the property-owner is concerned with is the hiding power and permanence of the respective pigments. Mr. Jennings says that lithopone "spreads" about one-third farther than lead. Does he hope to deceive us by bluff of this kind? It is not the "spread" of paint that matters so much as its hiding power or capacity, and still more its durability; and in both of these qualities lithopone, as well as zinc oxide, is notoriously defective.

It may suffice to quote the experience of Mr. G. W. Ansell, manager of the Construction Department of Messrs. Harrods, Ltd. Like other decorators, Mr. Ansell, during the war had to use substitutes, because lead paint was unobtainable. "This, however," he stated the other day, "cost a lot of money to put right. In one case in particular where substitutes were used we had to repaint the job twice before I could pass it. If white lead were prohibited it would not be bad for the decorator" (Mr. Jennings is editor of "The Decorator") "but bad for the customer. Instead of a painter having to do a job once, he would have to do it at least twice." And the poor customer would have to pay.

One word more. Mr. Jennings says my article was biased. He himself evidently prefers foreign labour to British, for in producing what is claimed to be a reprint of the Departmental Committee's Report, it is evident that he placed the printing, not with an English, but with a Continental firm; although, for an editor, he was strangely forgetful of the English law requiring the imprint of the printer's name. Moreover, although this is described as an "exact reprint," certain lengthy passages that weaken his case are tactfully omitted.

It is not without its irony that this very Report which Mr. Jennings has been at such pains to print, out of England, should be so discredited by the unsatisfactory experience of the Office of Works with leadless paints that the Home Secretary has just appointed a new Committee to re-investigate the whole matter. Indeed, "Time may have brought its lessons."

What is really curious is that it should have been thought worth while by someone to print abroad this partial reprint of this now discredited Report with a preface which is obviously translated from the French, of which indeed a large part is a direct, but unacknowledged, translation of a "prohibitionist" article in "La Revue Universelle des Mines" of September 1. It is as curious as the quotation, also without acknowledgment, by the International Labour Office in its notorious pamphlet on this subject, of many passages from what is obviously a piece of trade propaganda of the merits of the "plumbous zinc oxide" (made in Belgium), which that pamphlet goes out of its way to recommend as a substitute for white lead. Is there any casual connection between these circumstances? And can Mr. Jennings throw any light upon them?—Yours, &c.,

AUDI ALTERAM PARTEM.

The Architectural Profession.

To the Editor of THE ARCHITECT.

SIR,—At this morning's session of the National Convention of Delegates of the Architects' and Surveyors' Assistants' Professional Union, now sitting at Leicester, the appended resolution was unanimously passed, and I am instructed to request you to give the resolution a prominent position in an early issue of your paper.

The resolution speaks for itself, and the governing body of the Union, being fully alive to the necessity for this warning, feels that it cannot be too widely circulated, and appeals to you, therefore, to give it publicity.

RESOLUTION: "That this National Convention of Delegates of the Architects' and Surveyors' Assistants' Professional Union views with growing alarm the increasingly overcrowded state of the architectural and surveying

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professions in the country, the consequent under-remuneration of all practising, salaried and assistant architects and surveyors, the consequent unemployment of a large number of young men and women who, having entered the professions through the regularly constituted channels, must at the completion of their arduous and expensive period of training, or soon after, seek appointments abroad or leave the professions.

"That this Convention further desires to warn parents, guardians, schoolmasters, and others of the responsibility they incur in entering those of whom they have charge (more especially if no particular aptitude for such callings is shown by them) into callings so overcrowded that they cannot now provide sufficient means to those already in them to maintain the status required of them by the public; and, further, to warn them in any case, if they are unable to put an intended entrant into a recognised school for the teaching of the professions, not to enter into any contract of pupilage or apprenticeship with any firm without first consulting some competent authority that the training received with such firm will be thorough and beneficial."—Yours, &c.,

JOHN B. HECTOR,
Hon. Gen. Sec. A. & S.A.P.U.

36 Victoria Street, S.W. 1,
September 17, 1921.

[We think this letter reasonable and to the point.—ED.]

House Painting by Spraying.

By ARTHUR SEYMOUR JENNINGS, F.I.B.D.

THE architect is naturally concerned in the cost of work done under his superintendence, and, while being careful always to preserve its good quality, desires in the interests of his client to keep down the cost as far as is practicable. One way in which this can be done as far as painting is concerned is to have the paint sprayed on instead of it being applied by brushes in the ordinary manner.

It may be taken as a very fair average that a painter will in one hour paint three square yards of surface one coat. The present rate of painters' wages in London is 2*s*. an hour, a slight reduction having been made on August 1. This means that the cost of labour, without materials, is 8*d*. a yard. Now if a spraying machine is used the work can be done in about one-sixth of the time. Allowing for contingencies we will suppose that it can be done four times as quickly as the old method—a very conservative estimate. It will be seen that in such a case the price of labour in painting is reduced from 8*d*. to 2*d*. per superficial yard, so that the front of a stuccoed house, measuring 200 sq. yards, would cost to repaint it, for labour only, £1 13*s*. 4*d*., per coat if done by spraying, and £6 13*s*. 4*d*. if done by brushes. This is no exaggeration, but just a plain statement of actual facts.

Paint-spraying machines are made by about eight different firms in this country. The spraying machines are used in a large number of industries—over 200—but it is only recently that they have been adapted to house painting. This has been done by mounting the apparatus on a trolley so as to render it portable. Such apparatus consists of a container for the paint, a small dynamo to do the pumping, and two hoses at the end of which is the actual spraying instrument, with which most readers will be acquainted in its smaller form used for artistic work and often called an "air brush."

The apparatus works as follows: Taking the case of the front of a large house finished in stucco. The surface is first cleaned down in the ordinary manner and all defects are made good. A swing scaffold such as Palmer's is usually employed, as it is the quickest and most economical method. The "boat" upon which the operatives stand can be easily moved up and down and from side to side as may be required. In spraying the same class of scaffold is employed.

From the ground are the two lines of hose, one supplying the air under pressure which ranges from 20 to 50 lb. per square inch, the latter being used for very thick liquids up to the consistency of tar. The second hose supplies the paint which is under just sufficient pressure to force it along the hose. As already explained the two hoses are united in the pistol-like sprayer. When the lever of this beautiful little instrument is pressed down the paint and air are discharged at the same time, and the air atomises the paint and gives rise to a very fine and diffused spray.

With the apparatus now available spraying can be done on a front up to sixty feet high, but by putting in a more powerful dynamo this height could be exceeded if necessary. The actual spraying takes a little time to learn in order that the correct amount of paint be used. If too much is sprayed on there will be unsightly runs; if too little the surface will not be properly covered.

As already intimated paint spraying is best suited for large and broad surfaces. It is not suitable for delicate "cutting in"—sashes for example. When window and door frames are reached when spraying a front, a piece of tin or cardboard is held against the frame to catch any of the spray which goes beyond the space it is desired to paint.

We may now consider the drawbacks to the method. Most of those advanced are more imaginary than real. One objection brought forward was that the paint would not adhere so well because the pressure given when a brush is used would be wanting. As a matter of fact, when a spray is used the pressure is very considerably greater, as will be acknowledged when it is remembered that a pressure of at least of twenty pounds to the square inch is made. No painter puts anything like such a pressure on his brush.

The next objection advanced was that the paint film would not be uniform—that it would be thick in some places and thin in others. When reading a paper some years back on paint spraying in general before an engineers' society this objection was brought forward. I was however prepared for it, and had provided myself with some sheets of transparent celluloid. The objection having been raised I invited any painter present who considered himself a good "brush hand" to come forward and paint one of the sheets of celluloid while a second sheet was sprayed with exactly the same paint mixture. When both sheets were painted I held just one and then the other in front of a strong electric light. The sheet which had been painted with a brush showed ridges of paint all over its surface, reminding one of a miniature ploughed field. The sheet which had been sprayed was quite uniform.

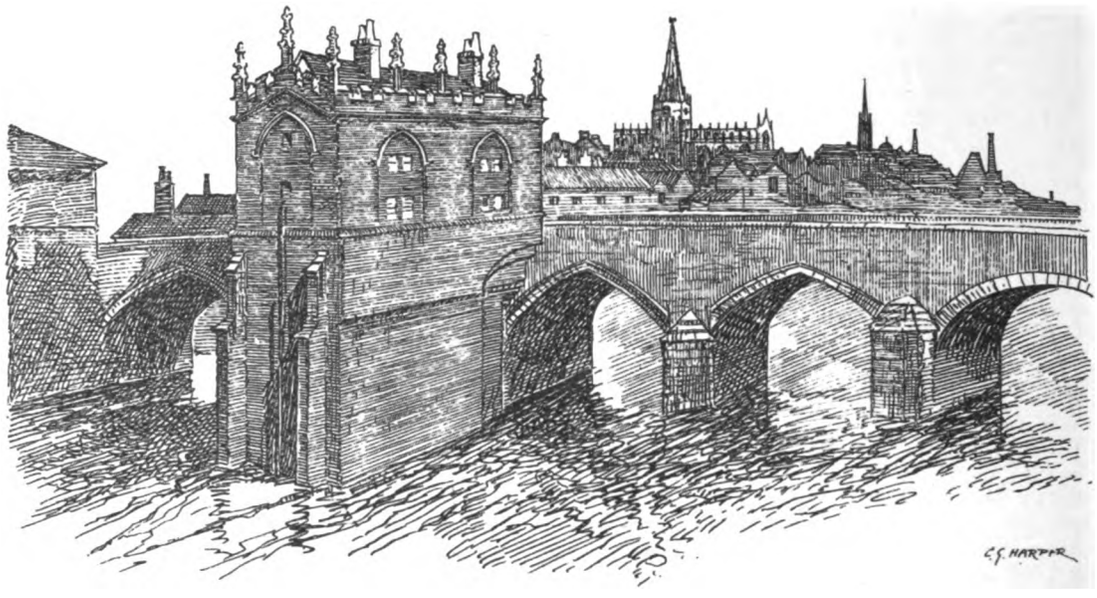
Some doubt has been expressed as to whether the spraying of paint would in any way interfere with its durability. One can unhesitatingly reply in the negative.

There is just one other point which should be dealt with. I have been asked "If this paint spraying comes into general use will not the journeymen strongly object?" The answer is that they probably will, just as the introduction of machinery into any industry is at first opposed. Any man of intelligence who has never handled a paint brush in his life could learn to spray in three or four days. I am of opinion that the work should be given wholly to painters, because their services will be required in cleaning down and repairing old walls.

If opposition is put forward on the ground that if work is done so quickly it will throw more painters out of work, it can be met by the simple and perfectly true statement that if the spraying process is used, and the price for painting is so materially reduced, orders will rapidly increase. There must be hundreds of thousands of houses in London alone which may be said to be "crying for paint." High prices have stood in the way of orders being given. Reduce that price and orders will be forthcoming. To the cost of labour when the paint is sprayed on at 2*d*. per square yard, or less, we have to add the cost of material. Genuine white lead ground in pure linseed oil is quoted at time of writing at 57*s*. 6*d*. a cwt. That quantity when mixed with the proper proportion of linseed oil, turpentine, and driers to make a paint will cover on old work about 650 superficial yards (one coat), so that the cost of material is only a little over a 1*d*. per yard. Painting at the rate of 3*d*. a yard for labour and materials is certainly interesting.

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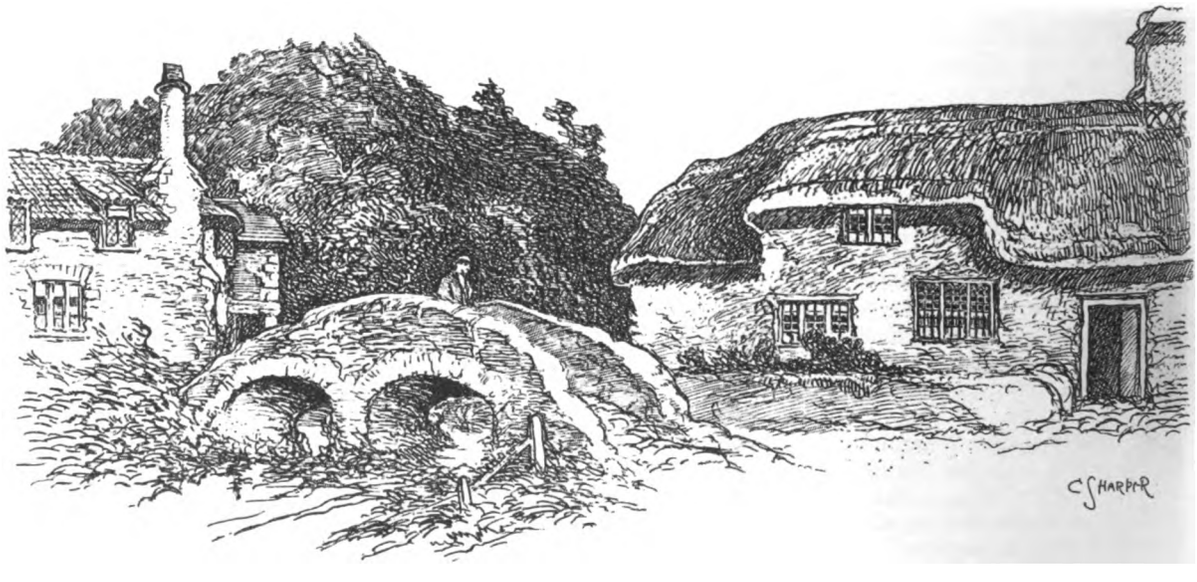
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ROTHERHAM BRIDGE AND CHANTRY CHAPEL.

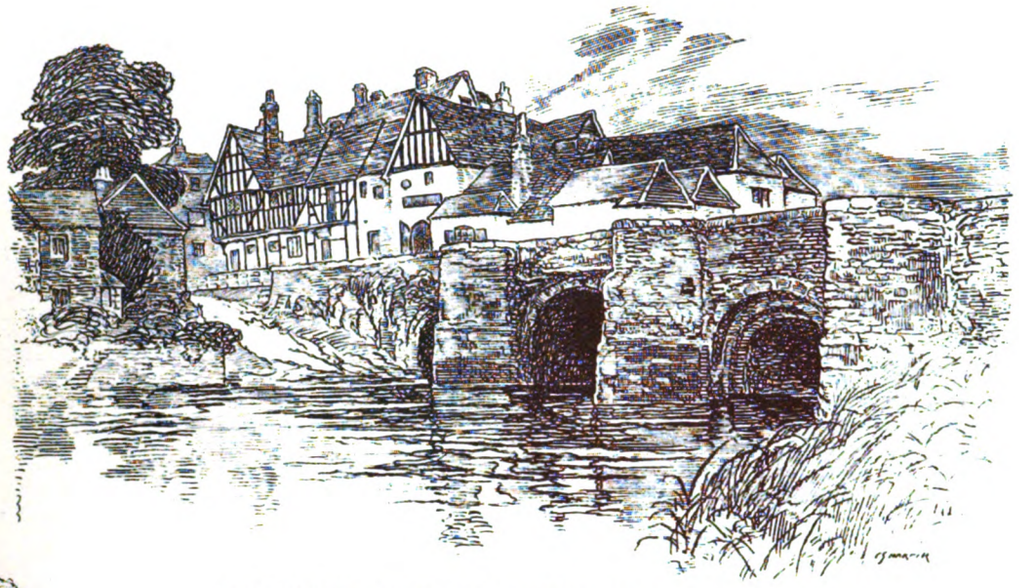


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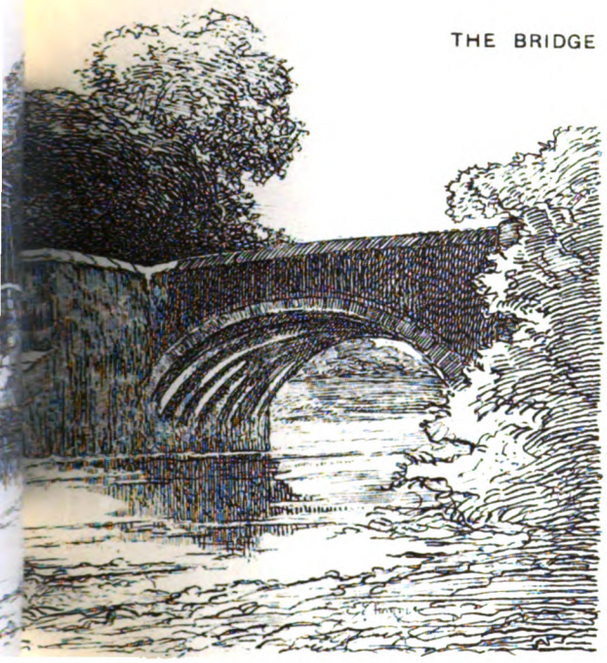


ALLERFORD BRIDGE.

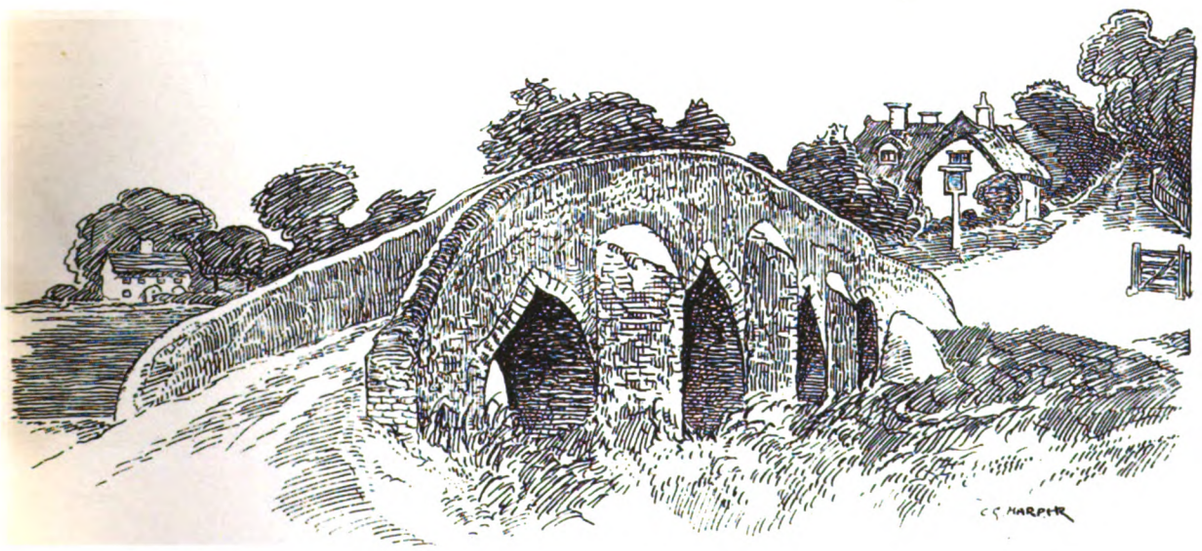
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THE BRIDGE AND BLACK BEAR INN, TEWKESBURY.



RIDGE.



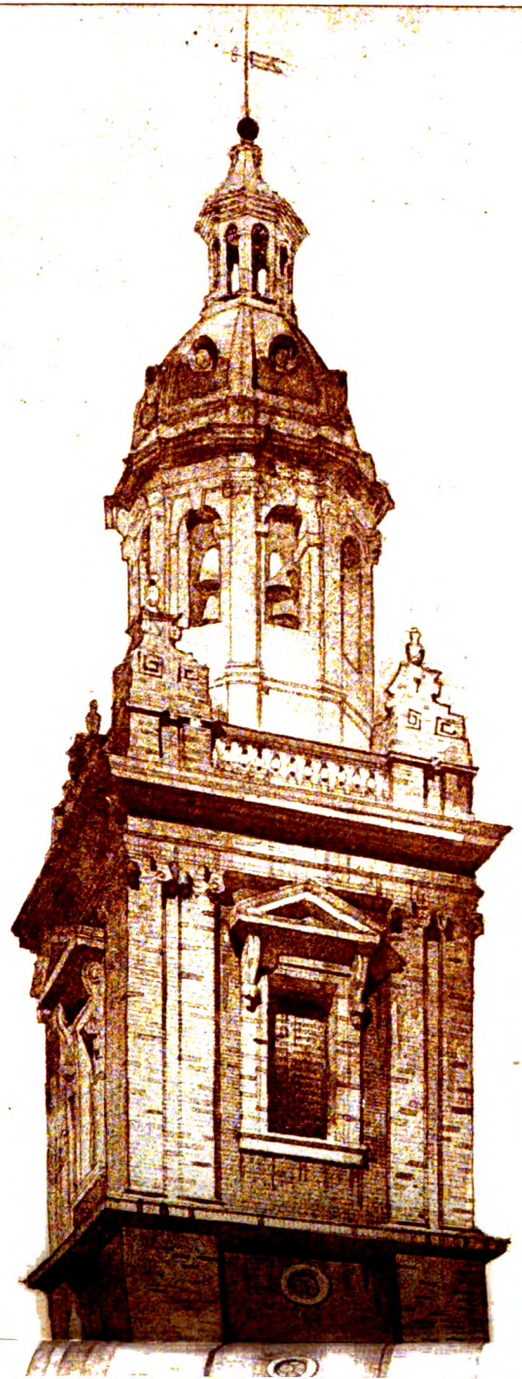
MOULTON PACKHORSE BRIDGE.

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CARILLON TOWER AS A WAR MEMORIAL.

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WAR MEMORIAL TOWER, LOUGHBOROUGH.

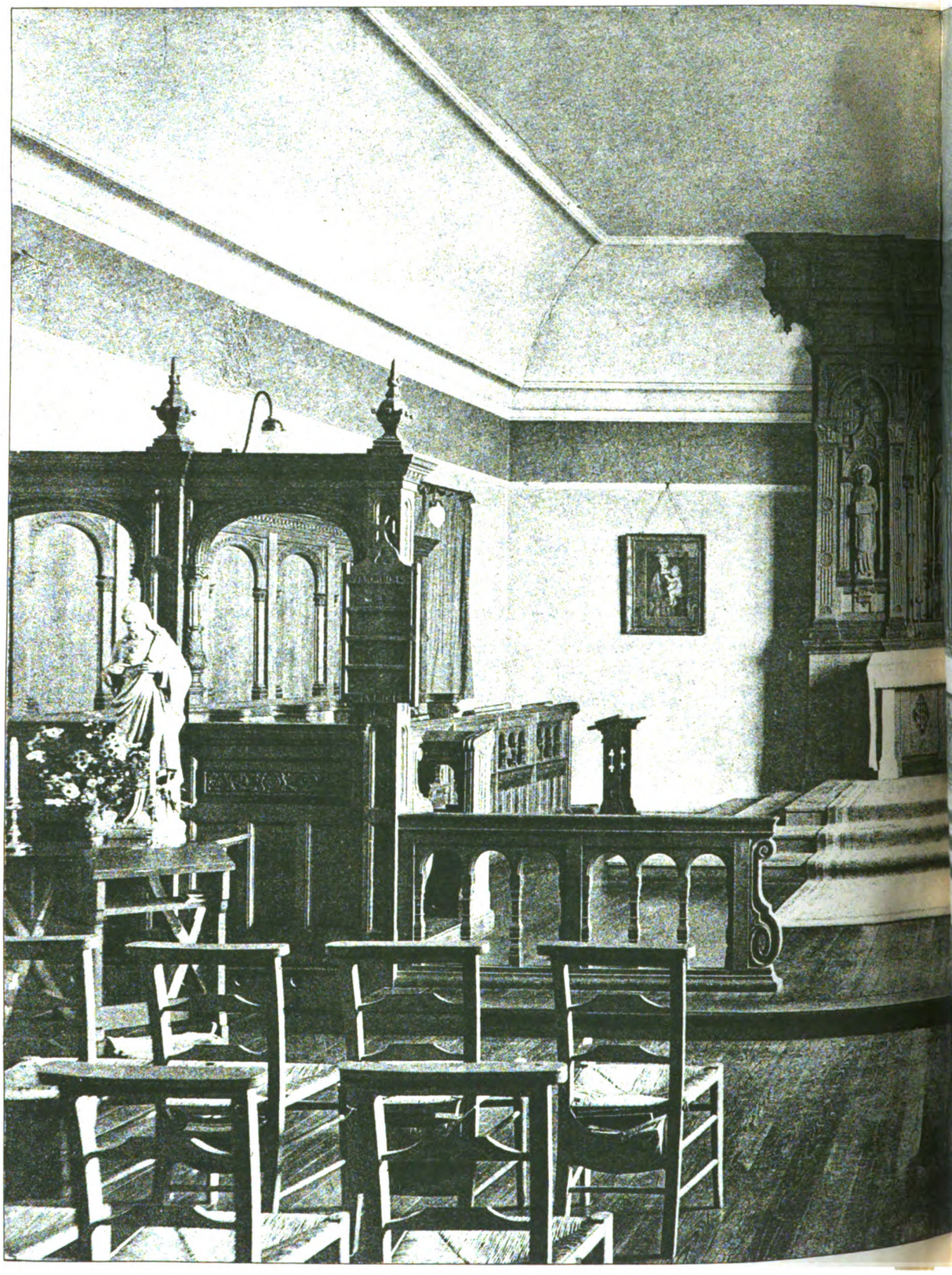
WALTER TAPPER, F.R.I.B.A., ARCHITECT.

Royal Academy Exhibition, 1921.

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CHAPEL OF THE HOLY
J. STANDEN ADAM

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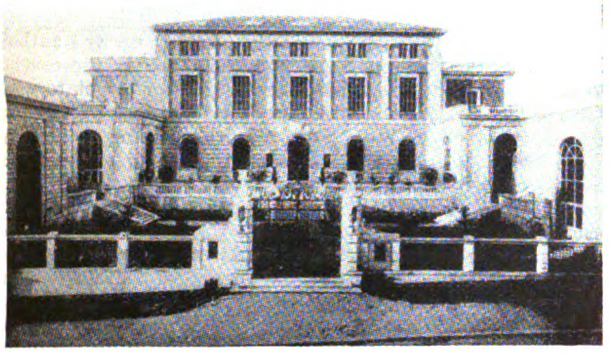


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LIMPSFIELD.

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The American Academy in Rome.*

By Charles D. Norton.

Member of the Board of Directors, the American Academy in Rome, Treasurer of the American Federation of Arts.

The American Academy in Rome, chartered by Congress, is a national institution similar in every respect save one to the French Academy in Rome, differing only in that it receives no support from the Government, but is endowed and maintained only by the contributions of private citizens. It is not a school; it is not for technical training or the teaching of any rudiments; its beneficiaries are the young painters, sculptors, architects, landscape architects, and classical scholars who have already advanced far beyond the preliminary stages of their various callings, and who in the yearly open competitions have won the prizes of Rome.

Classical candidates, who must be holders of a college degree, are selected upon submission of evidence of their special fitness for the study and investigation of the archæology, literature, or history of the classical or later periods.

Architectural candidates must be either graduates of an accepted architectural school, or of a college or university of high standing, holding certificates of at least two years' study in such architectural schools, or pupils of the first class of the Ecole des Beaux-Arts, who have obtained at least three values in that class. Painters and sculptors must show evidence of advanced attainment and special fitness. All the above are conditions pre-requisite to consideration as competitors.

The winners of the prizes of Rome are termed Fellows of the Academy. They are appointed for three years, receive an annual stipend of $1,000 each, and are provided a residence in the Academy. The full plan contemplates the sending out each year of nine Fellows, including a Fellow in music, making twenty-seven always in residence.

There is an excellent library; there are studios for the sculptors and painters, as well as the beautiful garden of the Villa Aurelia available for outdoor work; there are pleasant living rooms, and the Fellows dine at a common table. Here this group of eager students live and learn to think and to work out their art problems together. They are required to travel, to visit Greece and all of Italy, little groups of architects, painters, sculptors, archæologists going about together to see what similar groups of artists created in ancient Greece and Rome or in Renaissance Italy—to learn together the lessons that Phidias and Giotto and Michaelangelo, Bramante and Leonardo have to teach; to broaden their views of life and of their art, and to fill their sketch-books with notes that in future years, under the hard bread-and-butter conditions of life and work at home, shall continue to infuse that work with the beauty and vitality of ancient days.

That is what the Academy is doing. As the Secretary of the Academy, Mr. Grant La Farge, has well put it: "Not merely *fellowships*, but *fellowship*." Constant discussion and criticism by the men of each other's work encourage breadth of view; it encourages versatility; a painter illustrates his ideas by modelling a figure; an architect designs and executes a fine decorative relief in colour; a sculptor makes such drawings of the minute detail of classic ornaments as the best architectural draughtsman would be proud of; a painter discovers the wonderful picturesqueness and interest of ancient Cretan costume, and so our painter goes to Crete, works as an archæologist, collects all sorts of objects, and then returning to Rome, he makes a huge mural figure painting in which he brings back to life this extraordinary, newly discovered past.

If you would see an illustration of what this inspiriting association of minds in Rome has produced here in America, look at the work of three Fellows of the Academy—young men on the rapidly growing and distinguished roster of our Alumni—in the new Cunard Building in New York.

The American Academy in Rome is the direct outgrowth of the World's Fair in Chicago in 1893. Then for the first time in America the architects of a vast project worked as a group in the closest association not only with each other, but also with the painters, the sculptors, the landscape architects.

The common effort, and the instant public recognition of their marvellous success emphasised the ancient lesson that Greece and Rome have always taught—the importance and value of collaboration in the arts.

Then and there it became a settled conviction in the mind of Charles McKim that America must have what France has had for two hundred years—an Academy in Rome, where our most promising young men in the several arts could be cloistered for three formative years.

McKim, Burnham, La Farge, Saint-Gaudens, Millet—now gone, and of others still living, William Rutherford Mead, the much beloved Dean of American architects, who after McKim's death succeeded him as President of the Academy and with steady courage through dark and trying years has guided the Academy down to this happier and more prosperous day; Boring, French, Blashfield, Mowbray, Kendall, Hutchinson, Moore, Root, Walters, Trowbridge, and many others founded first the American School of Fine Arts, and then absorbing the American School for Classical Studies, they developed their ideas more fully in the American Academy in Rome, now celebrating its twenty-fifth anniversary.

In its financial affairs the Academy has benefited by the counsels of Mr. Henry Walters, that far-sighted, generous man who gave to the Academy the first home which it owned, the Villa Mirafiore, a home which it occupied for many years until the Villa Aurelia, with its beautiful gardens on the summit of the Janiculum, became ours by the bequest of Mrs. Heyland. Mr. Walters, with Mr. Morgan, Mr. Higginson, Mr. Vanderbilt, and Mr. Frick laid the financial foundations of the Academy by the first five gifts of $100,000 each.

Mr. Morgan's interest in the Academy continued throughout his life. He gave additional large sums of money and the lands adjacent to the Villa Aurelia, on which now stand the new Academy building and the Villa Chiariviglia and Villa Bellaci, and then just before his death in Rome, to make possible the completion of the new building, he caused to be loaned to the Academy $375,000 in the expectation that on his return to America his friends would join their contribution to his own and extinguish this debt. After his death his son, Mr. J. P. Morgan, with most striking generosity, offered to cancel one dollar of this debt for each dollar newly subscribed

* An address delivered at the Twelfth Annual Convention of the American Federation of Arts, Washington, D. C., May 18, 19, and 20, 1921, and reported in the "American Magazine of Art."

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to the Academy endowment. Spurred by this offer the Academy's friends last year gave the sum, cancelled the debt, and to-day our endowment is approximately $1,200,000 in securities yielding $45,000 yearly, or about one-half of what the Academy requires to carry on the full programme which it contemplates when more funds are available. Our lands and buildings, in which $581,000 have been expended, are worth double that sum. The timely donation in 1913 of $10,000 per year for ten years by the Rockefeller Foundation has been a vital factor in our affairs.

Urgent needs remain. Well paid professorships; endowment for fellowships in musical composition; funds to enable the Academy to publish regularly the work of the Fellows; funds to enable the School of Fine Arts to admit women; urgent needs, sufficient to tax the enthusiasm and the ability of the Trustees and the generosity of America. But despite those needs a great institution has been securely founded, and is doing great work. Our most urgent, our most vital need is not a material one. It is that the people of America, all of America, shall know that this priceless possession, the American Academy in Rome, is their own; that the lads in every public school shall know that the Prize of Rome is open for their winning; that there are three golden years of life and work offered them in Rome, so that they will strive for this highest honour which can befall a young painter, sculptor, architect, landscape architect or classical scholar, just as the youths in every village and city of France for two hundred years have yearned and worked for the Grand Prix de Rome. To those in this audience from our far and vigorous West, I pray you return home to spread the knowledge of this opportunity, so that more competitors shall appear annually to try for these prizes of Rome, so that the American Academy shall become even more truly American in its representation, so that the ideals which inspired the founders shall underlie all our future great constructive efforts, our town plans, our peace and war memorials, our domestic art and architecture.

To the American Ambassadors in Italy, from the time of Mr. Henry White, who was in Rome when the Academy was founded, to the present Ambassador, Mr. Johnson, all of whom have extended the utmost of co-operation through all the years, the Academy owes much of its happy situation in Rome to-day. To George Von Lengerke Meyer we are indebted for the sagacious selection and purchase with the Walters fund of the Mirafiore property, from the sale of which, after long and satisfactory use, the Academy reaped a substantial profit. To the Ambassador during the Great War, Mr. Thomas Nelson Page, recently elected Honorary Councillor of the Academy, and I may add to his gracious wife, there is unending obligation not only for kindliness and hospitality, but particularly for the wise counsel which enabled the Academy during the war to render the maximum of service, not merely by the war work of the entire staff, but particularly in assisting to make available the property of the Academy as a hospital for the Italian Mutilati and as headquarters for the American Red Cross.

The breadth of view, the generous consideration with which Italians welcome a foreign institution like the American Academy in Rome, is most striking. Inheritors as they are of the priceless possessions of the ages, which they hold as a sacred trust, with unbounded generosity they make available to the eager students from the new world all that they possess. They have bound us to them by invisible but enduring bonds of obligation and affection. This obligation is understood and expressed by every Fellow of the American Academy in Rome, but it is too little understood and appreciated by the people of America. What do we not owe to Italy, when we come to measure this invisible and intanglible balance always running in her favour, always placing us more and more deeply in her debt? I appeal to the American Federation of Arts to join us in speaking to Italy the word of affection and gratitude which such treatment inspires.

"The Architect" Fifty Years Ago.

SEPTEMBER 23, 1871.

THE COMMONS PRESERVATION MOVEMENT.

IT is gratifying to observe that the recently revived authorities for the protection of the public interest in the common lands around the Metropolis are beginning to get to work. Last Saturday "a Forestal Court of Attachment" for Epping Forest was held at Woodford, the first meeting of the kind since 1848. Mr. Tindal Atkinson attended to represent the complaints of the freeholders; and Mr. Nelson, the City Solicitor, specially on behalf of the Corporation of London. Of course there duly appeared likewise the legal representatives of the appropriators of the land; and one of these, an attorney from Bedford Row, had the moral courage to claim the presidency of the Court under the melo-dramatic title of "LORD WARDEN OF THE FOREST." This modest application having been discussed, and, unfortunately for the public amusement, rejected, another attorney from the same quarter, if not the same house, and in the same generous interest—we may even say, in the same self-denying spirit—offered to take the secretaryship of the Court on the ground that he was "STEWARD OF THE FOREST." This admirable suggestion, however, like the former, failed to impress the Verderers with a due sense of the fitness of things. The next joke was to call the roll of the Forest Officials of 1848. As might have been expected, one half of them had departed this life, and the other half only survived in the shape of decrepid old men; but these had happily strength enough left to help the Court to recognise officially, what all the world knew very well informally, that the Lords of Manors had helped themselves in the most liberal way to the questionable freehold of the soil; the Church, as usual, taking its share of the "improvements"—from the late Bishop of Salisbury, who had been able to enclose only one acre and a half, and the Reverend John Pardoe who had had to be satisfied with selling large quantities of gravel to a certain Reverend Mr. Maitland, whose indefatigable industry had recovered one thousand acres of good farm land and building ground. The full explanation of these adventurous exploits occupied several hours; and the Court accomplished little else for its first sitting. At the close of the proceedings, however, there was "a splendid haunch of venison" discussed in proper form, which we regard as a sign of the good sense which is to be expected to characterise the revival of this ancient tribunal. For a dinner is the best known means of doing real business under difficulties; and we hope the "Lord Warden of the Forest" and his colleague the "Steward," with the Reverend Lords Messrs. Pardoe and Maitland, not only enjoyed the repast as attorneys and ecclesiastics generally do, but left it wiser and better men, reflecting possibly upon a maxim which lawyers and divines ought equally to know respecting him that removeth his neighbour's landmark.

Another incident, reported from Wimbledon, is the prosecution by the Board of Conservators of two lads for amusing themselves by setting fire to the furze on the common. The Conservators gave it to be understood that the land under their authority was no longer to be regarded as "no man's land;" and the magistrate very properly supported them by adjourning the case for the arrest of a third offender. We may perhaps hope, however, that these Conservators and all other similar authorities will no longer stop short at the punishment of schoolboys for the sake of preserving the furze for the land, but will display equal assiduity in considering the much more important question how to preserve the land for the furze.

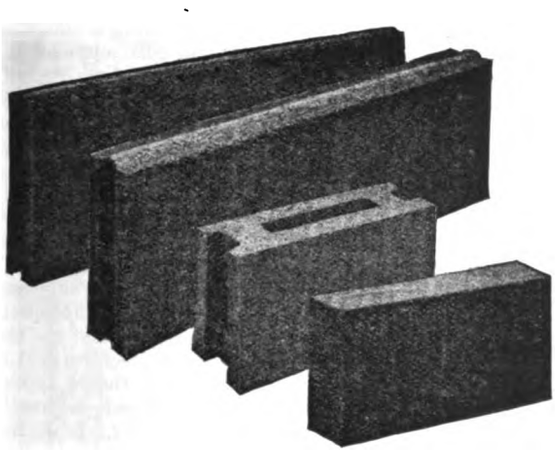
THE Wath-upon-Dearne Urban District Council have approved the plans, for the erection of a cinema theatre, upon a site near the canal. The architect is Mr. Pascal J. Stienlet, 14 Savile Row, Newcastle-on-Tyne.

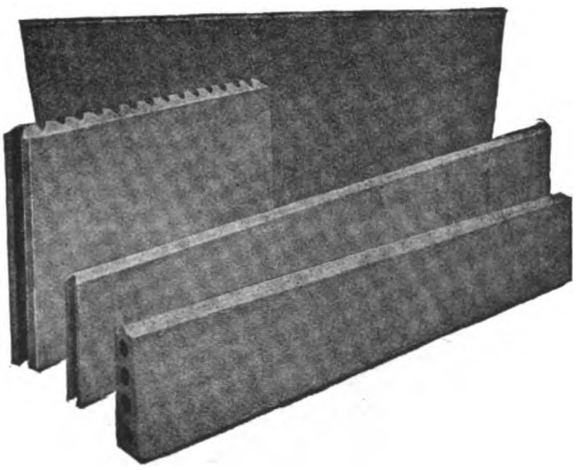
THE Haslemere Cottage Hospital Committee have determined to commence forthwith the erection of a new hospital containing twenty-eight beds in Church Lane at a cost of £30,000. About £8,000 still remains to be collected.

THE London County Council recently offered one of the thirteenth-century arches of London Bridge, which was discovered when excavating for the foundations of Sir John Burnet & Partners' new building at Adelaide Place, to the Bermondsey Borough Council for erection and preservation in the proposed recreation ground at St. Olave's Church, Tooley Street. The Council, however, consider that there is not sufficient space, but have offered to provide a site in Southwark Park.

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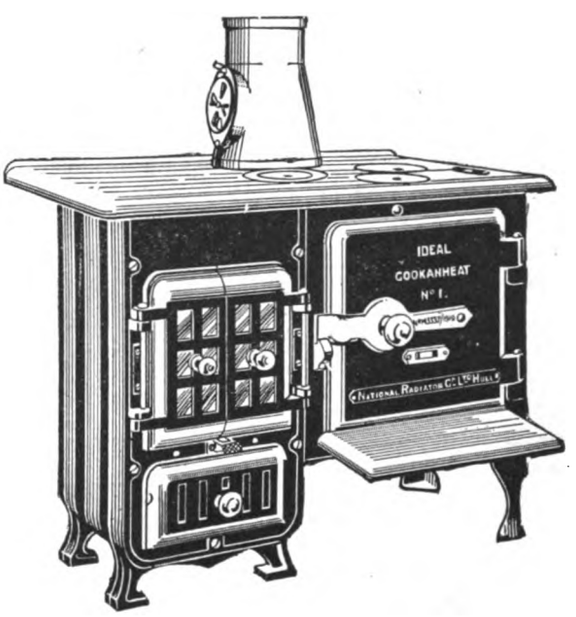
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New Books.

"More about Unknown London." By Walter George Bell, F.R.A.S. With sixteen illustrations. London: John Lane. 6*s*. 6*d*. net.

In the present work the author, whose work on the "Tower of London" has recently been published in attractive book form by the Bodley Head, contributes a series of essays on subjects connected with London, commencing with Gog and Magog, the legendary giants of the City; and touching next the famous sea-fight in 1340 of L'Ecluse or Sluys, fought between the English and Norman-French fleets at the entrance of the great canal to Bruges—in fact upon almost the very spot which was to be in our own days the scene of that fine naval achievement to which the broken mole of Zeebrugge and the sunk ships in her harbour still bear eloquent witness.

In a "Garden of Memories" Mr. Walter Bell is back upon ground familiar to us in his study of the Tower of London, though here he gives special attention to the doomed figure of that "old fox" Simon Fraser, Lord Lovat, who paid the penalty of his political schemes on Tower Hill with courage and dignity, being the last man to be beheaded in England. We are on the same ground, or nearly so, in Chapter V., with "Anne Boleyn's Letter," in which the writer brings us very close to that pitiful story of her end. Her famous letter to the King, her husband, is here given in facsimile reproduction. "If the letter be genuine," says Mr. Bell, "it contains things most calculated to defeat its object." He refers to the allusion to her rival in the King's affections; but this, we consider, is the very point which goes to establish its authenticity. A delightful later chapter is that of "Dr. Johnson's Womankind."

"The Tower of London." By Walter George Bell, F.R.A.S. Illustrated by Hanslip Fletcher. London: John Lane. 6*s*. 6*d*. net.

In this attractive little volume the author has brought together the articles upon the Tower of London which appeared in "The Daily Telegraph," and has also been able to include those delightful illustrations by Mr. Hanslip Fletcher which formed such an attraction when published. Reproduced they gain in conditions of reproduction what they lose in breadth and space. Mr. Walter Bell writes about the Tower in a charming manner. He has to help him the two gifts of historic imagination and of humour. Beginning with the great Norman keep, erected by the Conqueror to overawe the citizens of London, he takes us down through the centuries, and spares us nothing of the tragedy of its many State victims. We have alluded above to the lovely and ill-fated Anne Boleyn, but she was only one of many victims. Beside her, under the altar of the chapel of St. Peter ad Vincula, lay the Dukes of Somerset and Northumberland, Queen Katharine Howard, Lady Jane Grey and her young husband Lord Guildford Dudley, the Dukes of Norfolk and Suffolk, the Earls of Arundel and Essex. The chapel itself, fallen into neglect, was restored under Queen Victoria, but preserves unspoilt its severe Norman character. "There is but one in England," says Mr. Bell, "the Lady Chapel at Durham Cathedral to compare with it in its severe restraint and beauty."

S. B.

The Building and Sites Committee of the Cardiff Education Committee recommend that five new elementary schools be erected at an estimated expenditure of £100,000. The schools will be erected at Grangetown, Monachty, Ely, and two in Canton.

The Ministry of Health refused to sanction Epsom's scheme for the erection of 161 more houses, but is, subject to certain conditions, willing that 30 houses should be built. The lowest tenders for these show that the houses would cost about £650 apiece. The houses already put up cost more than £1,000 each.

General.

Glasgow Dean of Guild Court last week granted an application for lining to erect a picture house, shops, and offices fronting Mordaunt and Nuneaton Streets, lodged by the Dalmarnock Picture House, Ltd. The cost of the building is estimated at over £25,000.

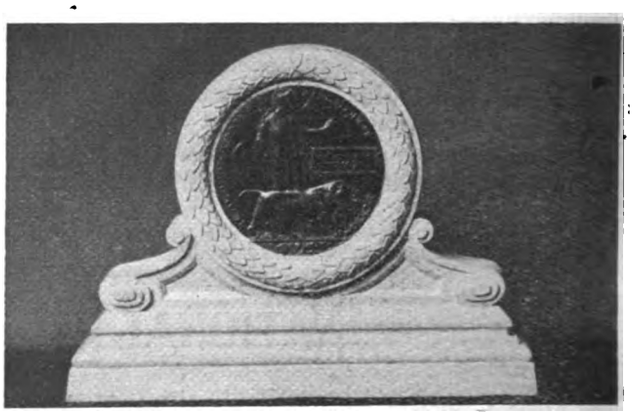
Mr. Thomas Hall Sissons, J.P., of Anlaby, Hull, chairman of Messrs. Sissons Brothers and Co., Ltd., paint and varnish manufacturers, who died on December 22 last, has left estate of the value of £65,004, the net personalty being £54,406.

Mr. Henry E. Farmer, M.B.E., F.R.I.B.A., M.T.P.I., chief architect to the Ministry of Shipping during the war and Ministry of Health Commissioner for Region "E" (West Midlands) until the closing of the Regional Offices, has resumed private practice at 32 Paradise Street, Birmingham.

Mr. Louis Ambler, F.S.A., F.R.I.B.A., in a letter to the Press on the subject of East Riddlesden Hall, says:—"The announcement of the sale by auction shortly of this estate cannot fail to be a matter of some concern to all antiquaries and lovers of old architecture. The Hall is one of the finest and rarest specimens of 17th century architecture in Yorkshire. Some of your readers may remember that I appealed in May 1913 to prevent the dismantling and destruction, already begun then, of the old hall, and Mr. J. J. Brigg and his brother, Mr. W. A. Brigg, came to the rescue, and bought back what had been sold, with the exception of the interior of one room (removed and re-erected in a house at Keighley), with a view to the buildings being preserved and restored in a similar way to Bolling Hall, Bradford. Bolling Hall is of infinite interest, and gives pleasure to thousands of people every year, and may be expected to do so for many centuries to come. I sincerely hope that this unique and beautiful building may still be preserved for the enjoyment and instruction of the present and future generations."

The Bartlett School of Architecture at University College (University of London) has arranged evening courses in Design and Academic Design. The Professor is A. E. Richardson, F.R.I.B.A., and the Studio Instructor is Ernest P. B. Musman, B.A., A.R.I.B.A. The evening courses will be held on Monday, Wednesday, and Friday evenings from 6 p.m. to 9 p.m., beginning on Monday, October 3. These courses are arranged in order to encourage the study of design among students engaged in offices during the day. Periodical lectures will be given on the principles governing the design of all types of modern buildings, special attention being given to conception and planning. Professor Richardson will supervise the courses and will attend one evening a week to criticize the designs. Students taking these courses will be given special facilities to study from the life; also the library of the school and its collections of historical drawings and architectural models will be available for their use. The fees are: Session, £12 12*s*.; term, £4 14*s*. 6*d*. Intending students should apply for entry forms to the secretary, and should attend on October 3 at 5.45 p.m. in the Bartlett School of Architecture. Full particulars of the Atelier for the study of advanced architectural design can be obtained on application to Mr. Walter W. Seton, M.A., D.Lit., F.S.A., Secretary, University College, London (Gower Street. W.C. 1).

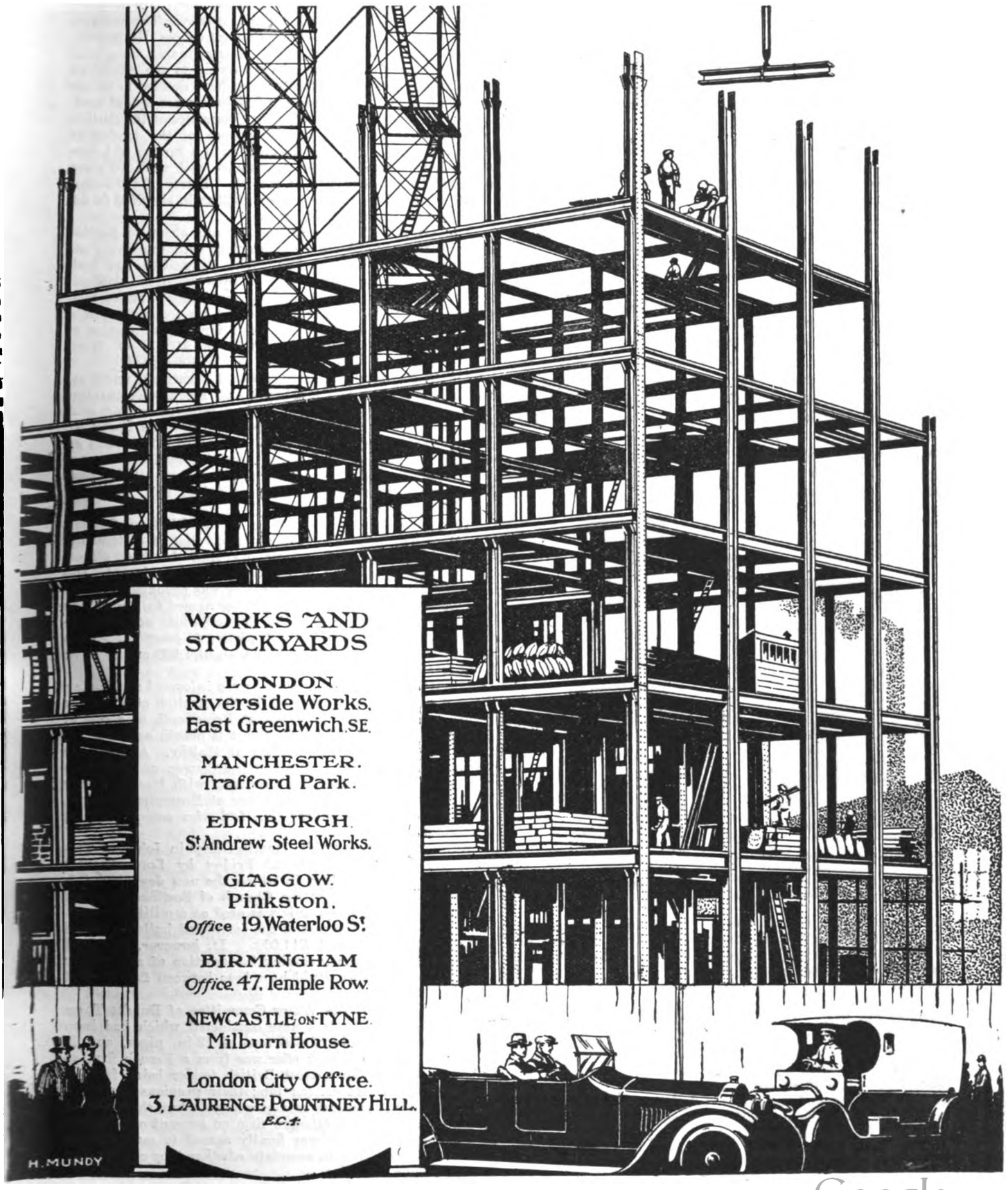
Our illustration shows the surround which has been carved in Hopton Wood (Stone) for a memorial plaque.



The dimensions are 13½ in. long, 9⅝ in. high, and 3 in. deep. The plaque, we may add, is to the memory of a son of Mr. Wildgoose, masonry contractor and quarry owner, of Matlock.

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Competition News.

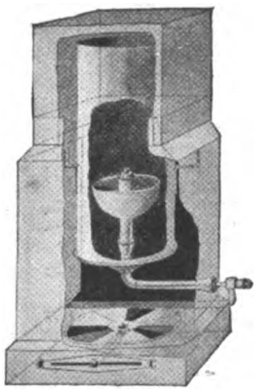
THE Harrogate Corporation invite designs not later than December 1 for a War Memorial proposed to be erected at a cost not exceeding £5,000. Premiums of £100, £50, and £25 are offered. A copy of the conditions of competition may be obtained from Mr. C. E. Rivers, A.M.Inst.C.E., the borough engineer.

THE Directors of the Castle Picture Palace Co., Ltd., Bury, are open to receive competitive plans and designs for a super cinema, proposed to be erected in Bolton Street, Bury. Particulars can be obtained from the Manager, Mr. J. Arnold Crabtree, between the hours of 10 and 12 A.M. and 2 and 4 P.M., Mondays and Saturdays only.

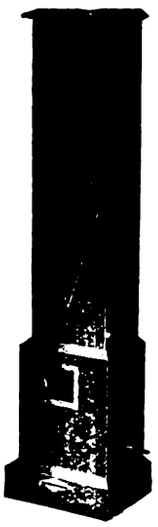
THE Welsh Eisteddfod prize of £100 for a design for the North Wales Heroes' Memorial, for erection in the grounds of University College, Bangor, at a cost of £15,000, has been awarded by Lord Plymouth and Mr. G. Gilbert Scott, A.R.A., the assessors, to Mr. D. Wynne Thomas, M.S.A., Old St. Paul's Vicarage, Bolton. Mr. Gilbert Scott says the design is refined, scholarly, and displays architectural sense of style superior to the forty other designs sent for open competition. Its simplicity and restraint produces a dignity in keeping with the purpose of the memorial, and the contrasts between plain surface and enrichment are effective, but it requires modifications, as it is hardly imposing enough for the site. Several suggestions are made by Mr. Gilbert Scott for attaining the object indicated.

The "Ventiheta."

No one, we think, will be ready to challenge the truth of the assertion that there has been an enormous increase in the cost of fuel and also in the commercial value of the cubic space of a house, or that it has become well-nigh impossible to secure cheap domestic help. If these facts are true, it follows that any system of domestic heating which claims to escape such difficulties is worthy of investigation. The apparatus here illustrated does make such claim—by its ability to supply a constant flow of warm fresh air at a very low cost with a minimum of attention and without the need of a fireplace. Air is drawn from the outside



Showing Bunsen Burner, Fire-Clay Cone, and inner combustion chamber. Also working parts of fresh air regulator.



Models for all purposes.

atmosphere, passes over the heat source (which may be gas, oil, or electricity) and is discharged through the outlets at the top. A notable point is that the warmth is not obtained at the expense of ventilation but is an actual cause of it. We understand that the "Ventiheta" consumes less than one-fifth of the quantity of gas used in an ordinary gas fire. If oil is used, one gallon of oil lasts twenty-four hours when the circular wick in the "Atmos" burner is turned up at its highest. For electric models the consumption is about 1½ units of current per hour when all four of the silica tubes are in action. The heater is made in four main parts from galvanised sheet iron and may be harmonised with the decorative scheme of any room. The Ventiheta (United Kingdom), Ltd., of 311 and 324 Old Street, E.C., have received many testimonials from users and invite investigation.

Housing News.

THE Darton Urban District Council are erecting fifty houses at Hexbro'. The architects are Messrs. R. and W. Dixon, Eastgate, Barnsley.

THE Worsbro' Urban District Council are erecting 75 houses at Worsbro' Dale, near Barnsley. The architect is Mr. Whitaker, of Sheffield.

THE housing scheme having been abandoned at Driffield, three builders have had plans passed for the erection of nine houses. There is not a house vacant in the town.

CLAYTON WEST Urban District Council are erecting seventy houses at Clayton West, near Huddersfield. The architect is Mr. Jackson, Tanfield Chambers, Bradford.

THE Hemsworth Rural District Council are building thirty houses at Hemsworth, near Barnsley. The architect is Mr. W. T. Lynam, surveyor, Council Offices, Hemsworth.

THE Todmorden Corporation, being unable to proceed with the municipal houses scheme owing to the refusal of the Ministry to sanction the tenders, have decided to let the sites for allotment purposes at a halfpenny per square yard.

THE Housing and Development Committee of the Carlisle Corporation recommend the acceptance of the tenders of Messrs. J. and R. Bell, for the erection of a further 66 houses on the Longsowerby site, in accordance with modified plans approved by the Ministry of Health. Thirty of the houses are to cost £623 each, twenty-four £532 each, six £623 6s. 8d. each, and four others £641 6s. 8d.

THE Cardiff Housing Committee are about to provide work for the unemployed by proceeding with the laying out of their housing site at Ely. The Committee last week accepted a tender of Messrs. E. R. Evans and Bros., Cathays, for the completion of the work of making 40 houses, commenced by the Waller Corporation, fit for occupation, at a cost of £606 6s. 6d. per pair, and for the completion of 10 pairs of another type the tender of Mr. J. O. West, Whitchurch, at £572 17s. 6d. per pair was accepted.

AT the Newport Bankruptcy Court a builder, under examination, said he had lost heavily on speculative building and on contracts. Although he had received subsidies of £240 in respect of each house, when he put the houses up for sale £475 was the highest bid. He had lost £300 on each house. He had tried several works' proprietors to purchase the houses for their workmen, but they all declined. He started business with a free capital of £75, and £400 raised by mortgage.

AT the last monthly meeting of the Blaydon Council the Housing Sub-committee reported that the Housing Commissioner had written stating that he had placed before the Ministry of Health the needs of the Council's area, and that the Ministry was prepared to sanction 100 more houses. The Committee agreed to inform the Housing Commissioner that the Council could not agree to any curtailment of the original scheme to erect 200 houses at Chopwell, 108 at Low Spen, and about 1,000 on the Park Head estate.

THE Rotherham Rural Council were informed on Monday that sanction had been received for the erection of a further twenty houses of the "B" type at Brinsworth at a cost of £720 per house. The Council expect to obtain approval for forty houses at Thrybergh and six at Maltby. At the same meeting plans for new offices and board-room on the Moorgate site were submitted, and a contract with Messrs. Henry Boot & Sons, Ltd., for laying sewer at Brampton Bierlow, and the Chesterfield Quarry Co., Ltd., for sewage tank at Ravenfield were signed.

EDINBURGH'S new Public Health Offices in Johnston Terrace were formally opened last Friday by Lord Provost Hutchison. The building in which the new department is now housed was formerly the Church of Scotland Normal School, and during the war it was used as a military depot. It was stated that the cost of the completed building would be between £13,000 and £14,000. If, however, they had entered into a scheme involving the erection of an entirely new building the cost would have been between £45,000 and £50,000.

AT a meeting of the Water Committee of Dundee Town Council last week tenders were considered which had been invited for the supply of 450 tons of 12-in. pipes, and it was found that the lowest offer was from a French firm at £12 5s. per ton, the nearest British tender being from a Glasgow firm at £13 4s. per ton; their previous quotation was £18 a ton. Several members urged that the contract should be given to the Glasgow firm on account of the state of unemployment. It was finally agreed to communicate with the Glasgow firm to ascertain whether they could make a more favourable offer.

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Realism and the Stage.

We have read with interest and pleasure Miss Isabel Chambers's admirable essay on Æsthetics in Stage Scenery which was awarded the Architectural Association Essay Prize. It forms a condensed and clearly expressed historical view of the stage of the past, and a *précis* of the aims and objects which the advocates of a return to simpler methods of staging are trying to effect. But the author has perhaps intentionally and properly expressed no personal views on a controversial subject, and it is precisely this subject which seems to us to be of greatest interest and importance. The advocates for a return to a simpler, less realistic, and more symbolical system of staging claim it as a reform, but are they right? What is drama but the representation of the action and emotion of life, and how and in what setting can such action and emotion be most fittingly presented to our imagination? This seems to us to be the crucial question. To deal with it, it is not necessary to go back to antiquity, when the drama was presented in open-air theatres and when there was no attempt at anything comparable to the production of a modern play.

It was customary in the past times of the Renaissance to present plays with little or no scenery, and by actors dressed in the costume of the time; if we ask why this was so it is clear that our forefathers had not command of a tithe of the means, apart from the mechanical contrivances, involved in the production of a modern play, nor had they the antiquarian knowledge of the past which is now available.

We have seen a production of "Hamlet" at the Little Theatre, based on the knowledge we assume we have of the custom of Shakespeare's time. The result was most interesting, but the candid critic probably had to admit that the appearances of the actors in Elizabethan costume, without the background of scenery, hardly added to the reality or force of the play. If we had a Hamlet in Scotch tweeds or Court dress and an Ophelia in modern dress, which would have been the true counterpart to the custom of Elizabethan times, the result would probably have been absolutely unpleasant to most people, and it would assuredly have seemed ridiculous. And yet we know that the localities of Shakespeare's plays, the dates they are supposed to represent, are of trivial importance, and that the scenes of the "Merchant of Venice" might with small alterations be adapted to suit any country or any period in European history in which the Jews have been treated as an oppressed people. In Shakespeare's time few of those who formed an audience had any but the vaguest knowledge of Venetian surroundings or of history. Now a large part of any audience could detect any anachronism of either time or place. If our object is to rivet the attention of the audience on the drama itself, is it not clear that some approach to accuracy is essential and not trivial in such matters? It is conceivable, as has sometimes been suggested, that the characters in Shakespeare's plays were representative of characters of his age, and were so regarded. But if this were so, it does not follow that in representing them at a later age, when topical allusions would no longer be followed, that we should adhere to them. The strength and meaning of the characters lie in his appeal to all ages, and in representing them to-day it is natural to place them in the setting which most appeals to us to-day. To do otherwise would help to relegate Shakespeare for purposes of the modern drama to the category of little-known writers whose plays are occasionally produced before a small audience of the cultivated; and to stage them as they were staged would be equivalent to the action of a man who lighted his house with rushlights instead of electric light because he preferred to adhere to the custom of a past age. Again, if we are dealing with "The Rivals," should we be satisfied to see the play acted either without scenery or in front of ordinary twentieth-century surroundings? We think not, and if we wish to express such plays fittingly is there rhyme or reason in either neglect of the setting or in a symbolical representation? We may argue that dramatic art has suffered by the over-elaboration and attention given to its accessory setting, and if the cost of the production of the drama has been so much increased by it that adequate salaries cannot be paid to actors we agree that we have sacrificed the more important for the less important factor, but on any other basis the wish to simplify theatrical representation seems to us to fall to the ground. If we have a Court scene staged insufficiently we are thrown back on our power of imagination, and what we may describe as being an undue weight of responsibility is thrown on the actors.

We have seen Salvini act Othello with stage accessories which might have been gathered from a second-rate Italian inn, but we cannot say the performance gained in force from the accident of its presentation. We have seen Antony and Cleopatra on the other hand staged with every appliance of modern skill and resource, and should say it gained and not lost in force thereby. We believe that had past generations had our resources at their command they would have done as we do now, and that the modern cry for greater simplicity is but one of the fashionable fads of the moment

We are told that we should employ symbolism to a greater extent, but again we ask why? A green curtain or a shrub in a pot may represent a forest, but if we have imagination enough to satisfy us, is it not better expended on the drama which takes place in front of a more realistic representation of a forest? There must be in any dramatic representation much that is left to the imagination, but there seems to us to be absolutely no reason why we should leave more than we need, and many reasons why we should not do so.

The modern cinema undoubtedly attracts many on account of its cheapness; it has brought a form

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of dramatic representation within the reach of people who could not afford to go to the ordinary theatre, and it attracts without the aid of colour or of speech. But cheapness alone would not in itself account for its popularity, nor can it be altogether claimed to be a result of popular bad taste. In a large measure we believe it is due to the fact that through the photographic realism of the scenes depicted they appeal to many more intimately than conventions to which the theatre is bound to adhere.

If we are right in this we shall doubt the wisdom of advocating the more archaic and conventional staging of the theatre. We should want to see a fair compromise between pedantic and meticulous realism and an archaic attempt to appeal to the higher intelligence of a few by discarding means we have within our power to use.

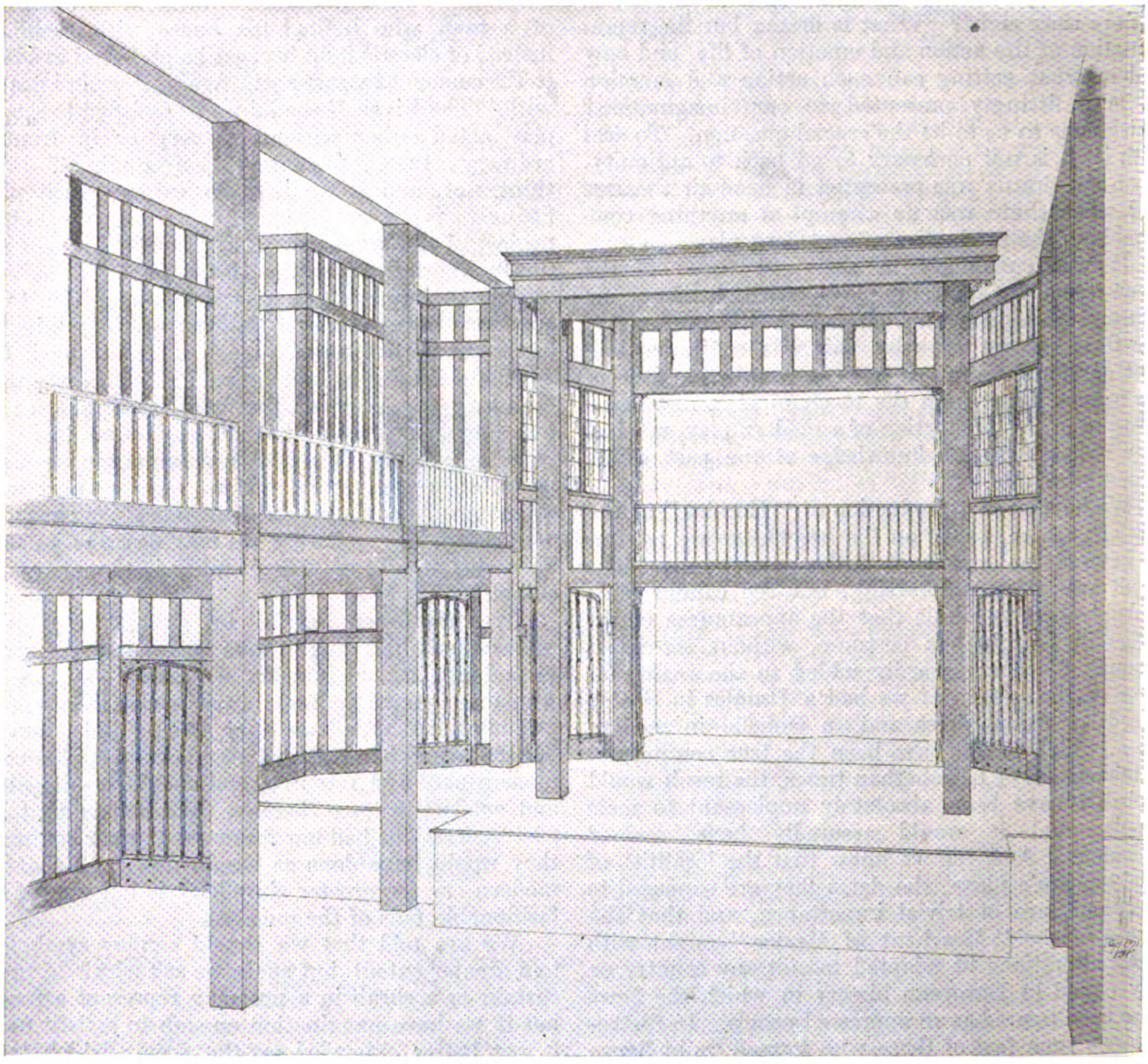
Within these limits there is room for great scenic artists in whose hands stage scenery may be made the means of appealing to lovers of art and of nature with all the means which modern invention and æsthetic knowledge have made possible to us. Let us not in this or in any branch of art become "too precious" to be easily understood by the man-in-the-street, for by the time we have created an art which satisfies the dilettanti and the antiquarian a little logic will show us that we have thrown away the kernel for the husk.

Illustrations.

PROPOSED BUSINESS PREMISES, LONDON: FRONT TO STREET. HORACE FIELD, F.R.I.B.A., Architect. (Royal Academy Exhibition, 1921.)

WAR MEMORIAL, ST. BENEDICT'S, ARDWICK, MANCHESTEB. J. HAROLD GIBBONS, F.R.I.B A., Architect. (See p. 189.)

ORPHANAGE FOR EIGHTY CHILDREN, AGED 3 TO 5. NORMAN O. SEARLE, A.R.I.B.A., Architect. (See p. 189.)



THE MADDERMARKET THEATRE, NORWICH. (An Elizabethan Playhouse.)

WE are pleased to be able to illustrate the Maddermarket Theatre at Norwich, which we are able to reproduce by the courtesy of "The Times." The theatre has been designed by Captain Noel Paul under the direction of Mr. Monck on the lines of an Elizabethan playhouse, following as closely as possible the specification found in the Henslowe Papers for the reconstruction of the Fortune Theatre, and use has been made of an old eighteenth-century church, which has been reconstructed in the manner shown. Interesting as the experiment is, it seems to us to show the impossibility of applying the theories of the advocates of simpler and more archaic staging to the modern theatre.

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Notes and Comments.

An Irish Department of Fine Arts.

A DEPARTMENT of Fine Arts has been formed in Dublin under the direction of Count Plunkett, T.D., Hon. A.R.I.B.A., one of the objects which he has already in hand is the exhibition of works of art illustrative of Irish genius. Count Plunkett is also concerned with the formation of an Academy of Christian Art. We assume that one of the objects of the new Department will be the investigation of the curious and interesting forms of early Celtic art in building and ornament of which the older buildings of Cashel are examples and which have no counterpart in this country. Whether or not these may form the starting point for new and typically Irish developments in building we do not know. Mr. R. M. Butler, of Dublin, has shown in some very good ecclesiastical work he has recently carried out that Celtic art can be made the basis of some very interesting design, and we suppose in these days of what we may call provincial nationalism that such work makes a strong appeal to many who in it see a revolt against the architectural imperialism of greater styles. Whether these revivals will live is another and more doubtful question.

A Furnishing Guild.

THE Furnishing Guild, which has been formed by leaders of the trade unions in the furnishing trade, is to be launched in the next few weeks. It is to be worked on the lines of the Building Guild, and its founders say they are confident of success. Mr. A. A. Purcell, national organiser of the trade unions concerned, spoke on the scheme at a meeting of the Manchester and Salford Trades and Labour Council. The Guild, he said, was to be a national one, and expected to be able to sell its furniture at fifty per cent. less than the price asked in the shops. "We have decided first of all to ask the trade unions generally for their support. We are prepared to do any work they require, not on a profit-making basis, but simply on the basis of what we call time and material, plus a charge for the cost of administration. We are willing to quote a maximum price for the carrying out of work; if we exceed it that is our loss, but if we come under it we want to share with those who are employing us the amount by which it is under the price we have estimated." The Council resolved to support the Guild which we wish every success, but which we hope will not imitate the Building Guilds in the aggressive attitude they have assumed towards others who do not wholly endorse their views.

Standardisation in Library Fittings.

MR. JOHN BALLINGER, C.B.E., M.A., the Librarian of the National Welsh Library, read an interesting paper before the Library Association at Manchester, in which he pointed out the advantages which would be gained not only by standardising card catalogues, but shelving tables and reading desks. We certainly believe that such standardisation would be a great advantage as it would enable libraries to exchange their fittings and to add to them without involving difficulties caused by small differences in design, while the results in saving in cost would be considerable. Although many architects have designed excellent fittings for public libraries we do not think they would object to being relieved of what is after all a considerable responsibility could they feel that they were not leaving the road open for the adoption of poorly designed stock fittings, and we have every sympathy with Mr. Ballinger's suggestions.

Lord Leverhulme's Portrait.

THE controversy over the cost of the portrait Sir William Orpen has painted of Lord Leverhulme appears to us to reflect no desire on Lord Leverhulme's part to undervalue art or to diminish its value. It is like many disputes—a purely legal one, as to the meaning and intention of a letter, and it seems to us that Lord Leverhulme has more definite data to go on than Sir William Orpen, as he has kept copies of his letters. It is a storm in a teacup, and probably not even that except to onlookers. We nearly always find if a dispute arises in a matter where we have not full copies of the correspondence that among the "missing links" we have made statements we should wish eliminated in view of the interpretation which can be fairly put upon them. A business man also is accustomed to write letters knowing that they may be used in evidence and expects similar care on the part of others. We do not for a moment believe that Lord Leverhulme would have objected if Sir William Orpen had assessed the value of his work at a higher sum, as it is he is drawing a not unnatural inference from the letters received; an inference unexpected by the artist who probably knows that the portrait he might have painted and the one he has painted are fair equivalents.

Orphanage for Eighty Young Children.

(See Inset Illustrations.)

THIS problem, set the author at a time when building-costs were at their zenith (December 1920), was one in which economy in planning and provision of accommodation was more than ever essential if the scheme was to be carried out.

The building as illustrated was designed for a site in Kent, and to be built in brick with tiled roof and fire-resisting floors, to accommodate eighty children between the ages of three and five, probably forty of each sex, together with the necessary staff.

In dealing with the housing of children it was felt that a sheltered aspect was essential, and the building was accordingly planned in an E shape and to face S.E., whilst it was thought that the provision of means of escape for such infants in the case of fire or panic would best be met by means of two sloping ways of easy gradient leading from the first-floor dormitories to the grounds.

The design is intended to permit all S.E. windows to be left open during the day-time all the year round, and the principles of "open-air treatment" to be followed as far as practicable.

On the first floor are the four principal dormitories, all with access to the main balcony and communicating with the sloping ways.

In the case of such young children twin beds have been provided for economy of space and other reasons. Each dormitory is 12 feet high to the ceiling, the balcony doors opening inwards as a screen to the heads of the beds adjoining. The covered balcony has a 3-ft. 6-in. unclimbable railing and convenient for the airing of blankets, &c., in suitable weather.

The window openings on the S.E. side extend from 2 ft. above floor-level up to ceiling-level on both ground and first floors. With low-pressure system of hot-water radiators throughout the building, coupled with the sheltered balcony and screened by the projecting wings, it is considered that "open-air treatment" can safely be continued through the winter months.

Total staff bedrooms provided number seven in all; with the gardener or handy-man in outside quarters the total staff might be eight in number, or one to every ten children.

NORMAN O. SEARLE, A.R.I.B.A., *Architect.*

War Memorial at St. Benedict's Church, Manchester.

(See Inset Illustrations.)

THE memorial at St. Benedict's Church, Manchester (a fine church erected in 1880 to the design of the late Mr. J. Crowther), consists of Parish Hall and Parochial Buildings grouped round a forecourt, with private garden behind. This it is hoped to commence next spring. The large crucifix made by Messrs. R. L. Boulton & Sons, of Cheltenham, has already been erected to commemorate those of the parish who fell in the war. This drawing was made by Miss Ellen Wilkinson, a Manchester artist, Mr. J. Harold Gibbons being the architect.

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London Art Galleries.

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THE London Salon of Photography is now holding its annual exhibition at the Galleries of the Royal Society of Painters in Water Colours at 5A Pall Mall East, an exhibition which, as I noted last week, keeps fully up to the standard of previous years. The aim of the London Salon has been stated as being to exhibit only that class of work in pictorial photography in which there is distinct evidence of personal artistic feeling and execution; that is to say, that the professional element is here put back in order to give a full and free play to artistic creation. It seems to me that this has been achieved both in the past and in this year's exhibition, and, moreover, that, in spite of certain points which may be open to criticism, no other Society achieves this result with the same consistent success. In figure work this year—for I regret to find that Mr. Teulon Porter, who was so successful last year in this field, is this time not exhibiting—Mr. Bertram Park comes forward with some really beautiful studies, one of the best in the modelling of the figure and lighting being his "Nude" on the first wall as we enter; but he has four other exhibits under the same title, all of them careful, accurate, and artistic studies.

In the same line of subject we find Angus Basil and Dr. H. B. Goodwin, whose half-draped "Figure Study" of a girl is excellent; and N. Murray in his clever "Compositions," as well as the Earl of Carnarvon, in such subjects as "Autumn" and "Pan" (though why this cleverly-lighted figure of a girl should bear the name of the goat-legged god of nature seems puzzling), use the figure as the basis for decorative camera creations. In Lionel Wood's "The Edge of Beyond" the figure of a woman outlined against the sky is used rather as an element in what I called last year imaginative camera work—, which is not merely a record fact, but in which a mood is suggested. Next to this last mentioned Dr. Lovejoy's "The Abyss" might be taken under this head, showing the figure of a man looking down into the lapping waves far below; or again much of F. O. Libby's work—such as "The Slow Moon climbs" or "The Lake below the Hill"—,Leonard Moore in his "Beach Leaves," Dr. G. E. Boon's "Levantine Craft," with its delightful reflections in the water, Rainville's "Elfland," even Donald McLeish's "Vampire of Notre Dame," which, apart from the wonderful rendering of the texture of time-worn stone, possesses or suggests a certain imaginative element, and Charles Job's "On the South Downs."

In portrait work Walter Benington is, as usual, excellent in his "Right Hon. Colonel Harvey, U.S.A., Ambassador," his "Professor Einstein," the face of a dreamer, outside of life (or should we say inside of its deeper realities), and his "C. Lovat Fraser"; another fine portrait-study is that of the Lord Chief Justice of England by Walter Thomas, while L. J. Steele's "Kai Neilsen, the Danish sculptor" at work is clever, and in Bertram Parks' brilliant "Study of a Spanish Dancer" I should be inclined to suspect that Miss Margaret Morris had posed. The camera work which deals with buildings, especially London subjects, is this year very attractive: I might mention among these "The Place Apart—St. Mary-le-Strand," by A. J. Freeman, "The Admiralty Arch" by W. H. Reece, and two delightful camera studies, "Under the Bridges, Venice," by Louis J. Steele, and T. J. Lewis's "Farm," which, simple in treatment, is, to my judgment, one of the best things here in this class of subject.

The work above described seems to me to come well within the aims of this Society as pictorial photography; that of the Royal Photographic Society, which always follows closely but a little later in time on the London Salon, I reserve for a later notice.

The Italian sculptor, Signore Riccardi, who is now holding a very successful exhibition at the Leicester Galleries, reveals a new and very individual talent in plastic art. His mastery of the figure appears in the nude seated figure of a girl, which is a fine piece of modelling, structurally correct, well composed, showing through the plaster the under forms of bone and muscle. An artist who can model like this has his art within his grasp, and possesses (as Michel Angelo once said) "the hand that obeys the guiding mind." On the other side in his portrait work, which is really of the first interest here, the sculptor is frankly realistic, examples of this treatment being his "Lady Lavery," his portrait-bust of "Lady Michelham," his brilliant bust-study of a Roman film star, Dyana Karenne. His half-length figure of a woman in a hat has a pictorial quality which recalls such an artist as the great Venetian Piazetta, and in his "Bust of a Young Lady" he has surely recalled the inspiration of those Florentine sculptors of the fifteenth century, with their refinement and suave quality of line. Among the bust of men here must be mentioned that of Lord Buckmaster (in bronze), and another bronze portrait-bust, that of Frederick Delius, which, as I have mentioned earlier, has been purchased by Sir Joseph Duveen for presentation to the nation. But in their technique I enjoyed the head and bust, full of character, of the artist's father, a Neapolitan pottery worker, and the bust in stone of General Peppino Garibaldi, monumental in character and treated decoratively, the strong lines of the form accentuated.

Some paintings and drawings by the præ-Raphaelites, Holman-Hunt, Simeon Solomon, Burne-Jones and others, placed not very effectively behind the sculpture, seem to connect themselves with Max Beerbohm's brilliant set of drawings in the front room satirising "Rossetti and his Friends." I consider that Max has never excelled these in his satires. If the likeness of Dante Gabriel, who is their central figure, with Holman-Hunt, Millais, Ford Madox Brown, and others grouped around him, is equal to that of William Morris—whom I had the privilege of knowing personally—in the "'Topsy' and Ned Jones settled on the settee in Red Lion Square"; then we have the poet-painter here to the life in such a scene as that before the mural paintings of the Oxford Union, when Professor Jowett is posing the question, "And what were they going to do with the Grail when they found it, Mr. Rossetti?"

A few doors further down Green Street Mr. Gregory Brown is giving an interesting show of his landscape posters, and drawings. The latter, in pencil or wash, are very attractive as showing the thorough grasp of detail which is simplified and strengthened in such posters as those of "Dorking by Motor Bus," those of the Underground Railway, the Bournville and Cadbury cocoa advertisements, and less directly, the figures in "His Little Widows." Without the accurate drawing shown in these pencil studies the artist could not have got the breadth and strength of his poster designs.

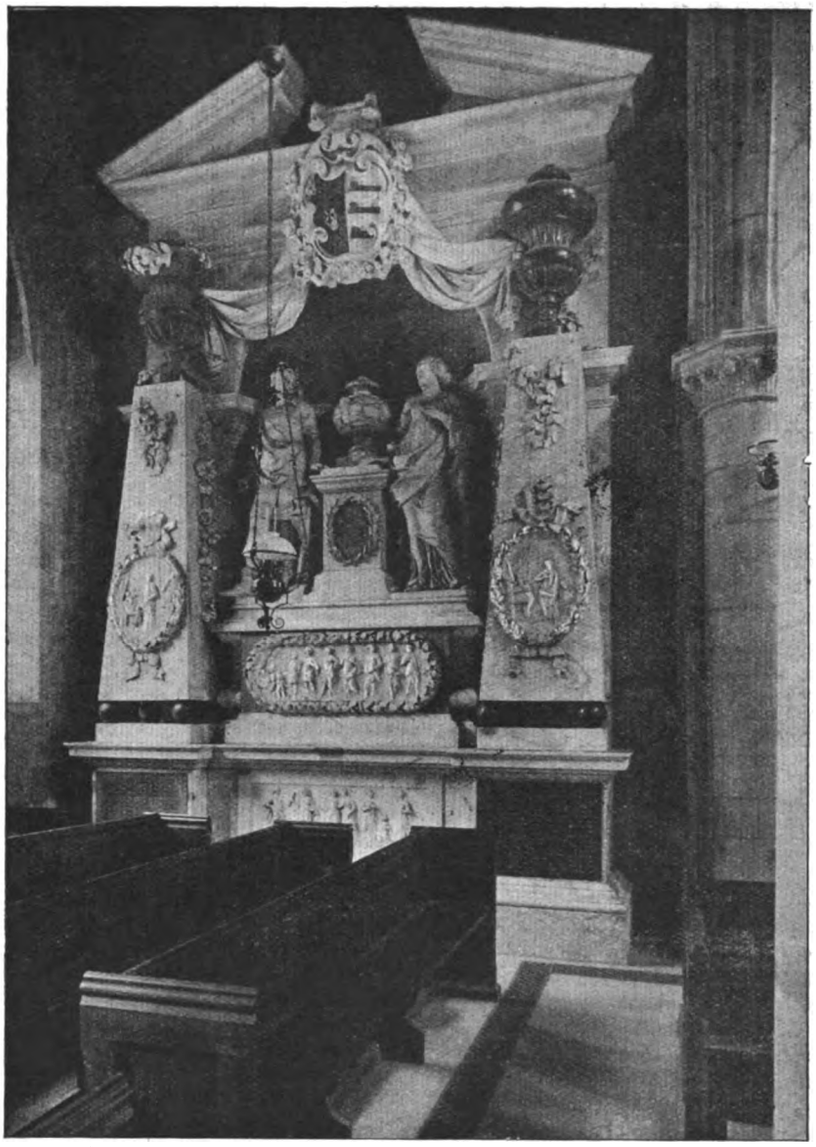
The National Portrait Gallery will be enriched, by the will of the late Mr. Burdett-Coutts, by some portraits of interest, notably the three daughters of Thomas Coutts, painted by Angelica Kauffman, and a large portrait of the Duchess of St. Albans; while if the portraits of Sir Francis Burdett and the Baroness Burdett-Coutts are not accepted by the National Gallery these will also come to the National Portrait Gallery. This subject of portraits recalls the latest difficulty of Lord Leverhulme over his own likeness; the artist this time is Sir William Orpen, and the question at issue is one of price, as to whether a full-length portrait arranged at 3,000 guineas should be reduced when the sitter is only half-length. It has been stated that Sir David Murray, a friend of both parties, may be able to arrange the matter. S. B.

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Studies of the English Sculptors from Pierce to Chantrey.

V.—Grinling Gibbons (1648-1721).

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TOMB OF BAPTIST NOEL, VISCOUNT CAMPDEN, AT EXTON CHURCH, RUTLAND. By Grinling Gibbons.

There is little trace of Italian influence, none, perhaps, save in the Berninesque extravagance of the lost bust of himself recorded by Horace Walpole, in our fifth sculptor, whose work both in wood and stone is in the typically English tradition, though he was only half-English by birth. Grinling Gibbons, in a letter to the antiquary Elias Ashmole still preserved at Oxford, enclosed a letter from his sister, giving an account of the hour of his birth at Rotterdam on April 4, 1648, in order to aid Ashmole in casting his horoscope correctly. It is probable, therefore, that his mother was Dutch, and one tradition says that his father was a Yorkshireman employed at York, who may have been one and the same with a Simon Gibbons who worked under Inigo Jones, but Vertue has a note that "his father was a Dutchman, and he was born at Spurr Ally in the strand," which shows that his origin was involved in uncertainty at the time. Stoakes gave Vertue the date of his birth as 1646. Gibbons certainly never mastered the English language, although he is believed to have come to London about the age of nineteen, when he took lodgings in Belle Sauvage Court, and carved that famous pot of flowers which, said Charles Stoakes the sculptor, a nephew of the Stones, "shook surprisingly with the motion of the coaches that passed by." Our first note of certainty comes with the entry in Evelyn's Diary (January 18, 1671), describing how he found the young sculptor "carving that large cartoon of Tintoret," the Crucifixion, with over one hundred figures in it, which Evelyn contrived to show the King and Queen, and which was sold for £80 to Sir George Viner. Vertue states, on Stoakes's authority, that Gibbons had a shop at Deptford, where Evelyn discovered him, and that "May, Controller of the Works, was much his friend and promoted him." Charles II., however, subsequently purchased a carving of the Stoning of St. Stephen on almost the same scale, containing some seventy figures, which he presented to the Duke of Chandos, in whose princely house of Canons—"Timon's Villa"—it remained until the demolition of the mansion and the dispersal of its contents. Charles also gave Gibbons a place in the Board of Works, and appointed him Master Carver to himself, in which capacity he executed much of the woodwork at Windsor, Kensington, and Whitehall—the last being lost, like the sculptor's bust of James I. over one of the entrances, and the four marble statues of St. John, St. Peter, St. Paul and the Church in the Chapel, which Evelyn admired, in the destructive fire of 1697—and carved a marble pedestal for the poor equestrian statue of his patron at Windsor, which, according to Horace Walpole, "may serve for a sign to draw the passenger's eye to the pedestal," though J. T. Smith dismisses the said pedestal as "a clumsy assemblage of every sort of shellfish, bound up in festoons and swags." Another royal commission, which, however, came to nothing, was for the statues for Wren's projected Mausoleum of Charles I.; but Gibbons is said to have executed two statues of his patron, one for the old Royal Exchange, for which he received £500, and for which, Vertue says, "a patent or prohibition was granted by King Charles II. in favour of Gibbons, that no one should presume to coppy it in print without a special leave from Mr. Gibbons. This statue though undertaken by Gibbons was actually the work of Quellin." The Charles II. now at Chelsea Hospital, a loyal gift from Toby Rustat, Page of the Backstairs, is still decorated with oak leaves on May 29. Better than these—one of the best statues in London in fact—is the admirable James II., now appropriately at the Admiralty, also a gift from Toby Rustat, which lost its original truncheon in the eighteenth century, but which, in spite of the conventional Roman dress, is a very fine work of art; it was executed, however, by Gibbons's assistant Laurens. There are other unnoticed monuments by him in London, one an excellent mural slab with the figure in very high relief to Mary Beaufoy, also in Westminster Abbey; a second to William Courten, the friend of Sir Hans Sloane, in the north porch of St. Mary Abbots, Kensington, now in very bad condition, the interesting inscription by Sir Hans Sloane being almost illegible, but though it is a

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FONT AT ST. JAMES'S, PICCADILLY.
By Grinling Gibbons.

commonplace mural slab surmounted by cherubim, it is melancholy to see an undoubted work of the great sculptor in such a state. The much more interesting monument to Dorothy Clarke at All Saints, Fulham, is, like the Mary Beaufoy, in good condition, and is well worth a visit. According to Bowack it cost £300.

Gibbons executed two busts of himself, one in marble, which is commemorated by Nahum Tate—"finely done, especially the face, the wigg and lace cravat monstrously large" (Vertue)—the other in wood, which he gave to Evelyn; and the elaborate fonts at St. James's, Piccadilly, and St. Margaret's, Lothbury, are admirable and accessible examples of his now rare work in marble. His greatest work in that medium, however, is the superb tomb of Baptist Noel, third Viscount Campden, in Exton Church, Rutland, for which Gibbons received £1,000 from his third son, John, and "the draught" of which, as Vertue notes, was in the possession of S. This is one of the most important monuments of the period, and was recently admirably published by the Rutland Archæological Society, but owing to its remote situation is very little known. The husband of four wives, only one of whom, however, is represented with her husband at full length, and father of eighteen children, had need of a large monument, and Gibbons's stately work measures 22 by 16 feet; it is one of the most important of its period, and should be more familiar than it is. Finally, we may mention that he carved much of the stonework at Hampton Court.

To most people the name of Gibbons—we use the form consecrated by Evelyn, though he himself almost always signed his name without the S—implies the glorious wood carving at St. Paul's and elsewhere, and it is certainly in this class of his work, rather than his efforts in bronze and marble, that his claim to immortality really lies. But here again, be it noticed, his work followed the English tradition. There are two carved doorposts in the Guildhall Museum dating from about 1660, where straight lines of flowers and fruit are as sensitive, as delicate, as anything executed by Gibbons. His originality lay less in mere technical excellence than in the exquisite variety of form and line taken by his chisel, which, as Horace Walpole said, "gave to wood the loose and airy lightness of flowers, and chained together the various productions of the elements, with a free disorder natural to each species." His work in this kind is now so familiar through the admirable studies of Mr. Avray Tipping that examples of his much less familiar monumental work are here reproduced by preference. It is difficult to give an adequate list even of his principal works in this medium, but in St. Paul's; St. James's, Piccadilly, which Evelyn greatly admired, and on which the sculptor bestowed especial care; in many of the City churches; in the Bed and Presence Chambers of William III. at Hampton Court; in Windsor Castle; the Chapel and Library of Trinity College, Cambridge; the altar at St. Paul's, Hammersmith; the altar piece of Trinity College, Oxford; and the Archbishop's wooden throne at Canterbury, we have readily accessible examples of his carving which should convince any sceptic of his unique powers. The carving in great private houses is even more remarkable, that at Chatsworth, for instance, where he worked both in wood and alabaster, producing, in the words of the poet Gray, "such a profusion of his best carving in wood, viz., dead game, fish, shells, flowers, &c., as I never saw anywhere," but of which we may say as Walpole did of another work, "the art arrives even to deception." The overmantles in the State dining-room at Stowe, representing a Goddess conducting Learning to Truth, and Mercury leading the Muses of Tragedy and Comedy to Mt. Parnassus, and the carvings of the Chapel are all by him; the carving of the nets on either side of the second mantelpiece deserves special notice as a miracle of technical dexterity. Petworth possesses a glorious State room elaborately decorated, to save which from destruction by fire cost his devoted assistant, Selden, his life; Southwick, Blenheim, Cassiobury, Houghton, Burleigh, are among the most celebrated of the houses he adorned; yet he who worked on this gigantic scale could carve minutely in wood and ivory on plaques a few inches wide. Late in life he was appointed Master Carver to George I., an office he had held under every sovereign since



MONUMENT TO MRS. MARY BEAUFOY, WESTMINSTER ABBEY. By Grinling Gibbons.

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Charles II., at a salary of 1s. 6d. a day; but most of his work had then been done, and the post was little more than honorary. He died in his house at Bow Street, Covent Garden, which he had rebuilt after its collapse in 1701, on August 3, 1720, and was buried in St. Paul's, Covent Garden, where his lost bust of Sir Peter Lely then stood, leaving behind him the reputation not only of being the greatest sculptor in wood who ever lived—to which we must add that he also worked in bronze, marble, stone, alabaster, and ivory—but also that of being still what Evelyn had found him as a youth, "very civil, sober, and discreet." But there is something to be said for the view, hinted at by Walpole and broadly expressed by a satirist of 1785, that he did not know the limits of his medium, and took deception for art. "The bunches of greengrocery carved by our immortal Gibbons" are not always appropriate; and as the same writer perceived, "architecture is an art too artificial" to admit of "the natural wildness of vegetable form." But it would be ungenerous to end on a carping note in connection with a sculptor who admittedly produced one of the best statues in London, one of the finest funeral monuments of his age, and the incomparable woodwork of St. Paul's, as to which one can only say, as of the work of Wren, "Si monumentum requaeris, circumspice."

(To be continued.)

For preceding articles of this series see :—
Introductory Article, July 1;
Nicholas Stone (1587-1647), July 8;
Edward Pierce (ob. 1698), Sept. 2;
Cauis Gabriel Cibber (1630-1700), Sept. 16.

Ideal Homes Exhibition at Glasgow.

Glasgow Corporation is noted—all the world over—for enterprise in the matter of Exhibitions, its promotions are invariably successful.

Little more than two years ago a large temporary hall, with huge floor area, was erected in the west end of the city, at a cost of £50,000; here Industries Fairs, Housing and Engineering and other Exhibitions have been held, to-day the whole building cost of the hall is cleared off and there is a profit of £10,000, the nucleus of a fund to erect a great permanent Exhibition hall that will be a credit and a convenience to the city. At this time there is being held a timely "Ideal Homes Exhibition"; the title is attractive, a considerable asset in a community where it is estimated there is a house shortage to the extent of 57,000.

The Corporation are building houses by contract, by direct labour in association with guilds, and private companies are taking a hand, and yet through high costs, departmental restrictions, shortage of material, recalcitrance on the part of organised labour, the results to date are absurdly disappointing.

The convener of the Corporation Housing Committee, the local director and his staff are working like trojans, but circumstances, including the Governmental handling of the matter, are against them, and progress is of the snail order. Now this Exhibition comes along, with its catch title, and expectation rules high. And The Architect's commissioner goes along with a big note-book, and a series of carefully sharpened pencils, to take a first look at the "Ideal Homes," and what does he find? A wooden cottage, half finished, built entirely with Scotch-grown timber; a concrete house of hollow blocks, without a roof; machinery for the manufacture of solid concrete blocks for houses; up-to-date utilities for cooking, heating, illuminating, and laundrying; an interesting display of parquetry; an exhibition of wall papers; quite ordinary furniture; a few rugs and carpets; peat-burning suggestions; a display of musical instruments, and facilities for the consumption of delectables made with custard powder.

Now, all this, except perhaps the two "Ideal Homes," might be seen and enjoyed any day without putting the machinery of an Exhibition in motion, and at a time like the present it is not quite fair to inspire hope in this direction only to disappoint. It is not to be inferred, however, that the two houses are lacking in interest, the timber one, for which a life of a hundred and fifty years is claimed—a by no means extravagant claim, since houses giving comfortable habitation in America to-day have withstood Nature's buffetings for two hundred years—with larch weather boards, spruce shingles, larch or spruce floors, spruce lining and ceilings, all timbers extensively grown in Scotland, has many features, but more communicating space should be given, the various rooms are too closely associated to be entirely healthy, and waxed boards and ceiling make a monotonous decoration, the frequent recurrence of join lines at intervals of 6 inches, running from base board to cornice, would irritate, would ruin the æsthetic value of any object placed against such background. This is a detail, rectification could be made with the use of an artistic woven wall canvas, proof against expansion and contraction on the part of the wall boards. Another objection to a waxed wall is that it absorbs too much light, thus a dull atmosphere is created.

The main advantages of those timber houses are economy in cost, rapidity in building, the time occupied from start of construction till completion of building being approximately four weeks.

The company exploiting this scheme is James Jones & Sons, Ltd., timber merchants, Larbert, who supply the wood in sections, ready for building purposes. Loss from fire is no greater in America than here, judged by the rate of fire insurance premiums, and in our case, larch is extensively used, and in the least inflammable of coniferous woods.

The hollow block concrete house, with continuous cavity, like Jerusalem, "compactly built together," is worthy of close attention. The one shown is in "bungalow" style, although two-storey houses are contemplated. The blocks—notwithstanding aversion to them in ultra-artistic quarters, as simulating that which they are not—make a neat, trim elevation, enhanced greatly by metal casements and an unconventional outer door.

When economy in time and cost are desiderate, this style of block concrete houses, smart, durable, hygienic, and moderate in cost, seems to meet the urgent case, it is worthy of commendation.

The walls and ceilings can be finished in concrete, in plaster or process board, or in a new "insulite" board extensively used in America, but not yet familiar in British housing.

The Scottish Concrete Block and Machinery Co. are responsible for this idea, and three weeks previous to the opening of the Exhibition not a block used in the house had been modelled.

A great point is made at the Exhibition of the purification of the city atmosphere, the use of coke and gas, in preference to coal burned in open grate, is urged, the object-lesson of a transformed city atmosphere during the recent coal strike is hammered home. In this connection three big photographs are exhibited showing the city at 7.30 A.M., at 12 noon, and at 5.30 P.M., sufficient evidence surely to make the present suicidal, wasteful use of coal an indictable offence.

Since so much interest is being taken in this quasi "Ideal Homes" Exhibition, greatly stimulated by delightful musical recitals by the Royal Marine Band, why not aspire to a real "Ideal Homes" show? The advantages derivable from such an Exhibition would be incalculable.

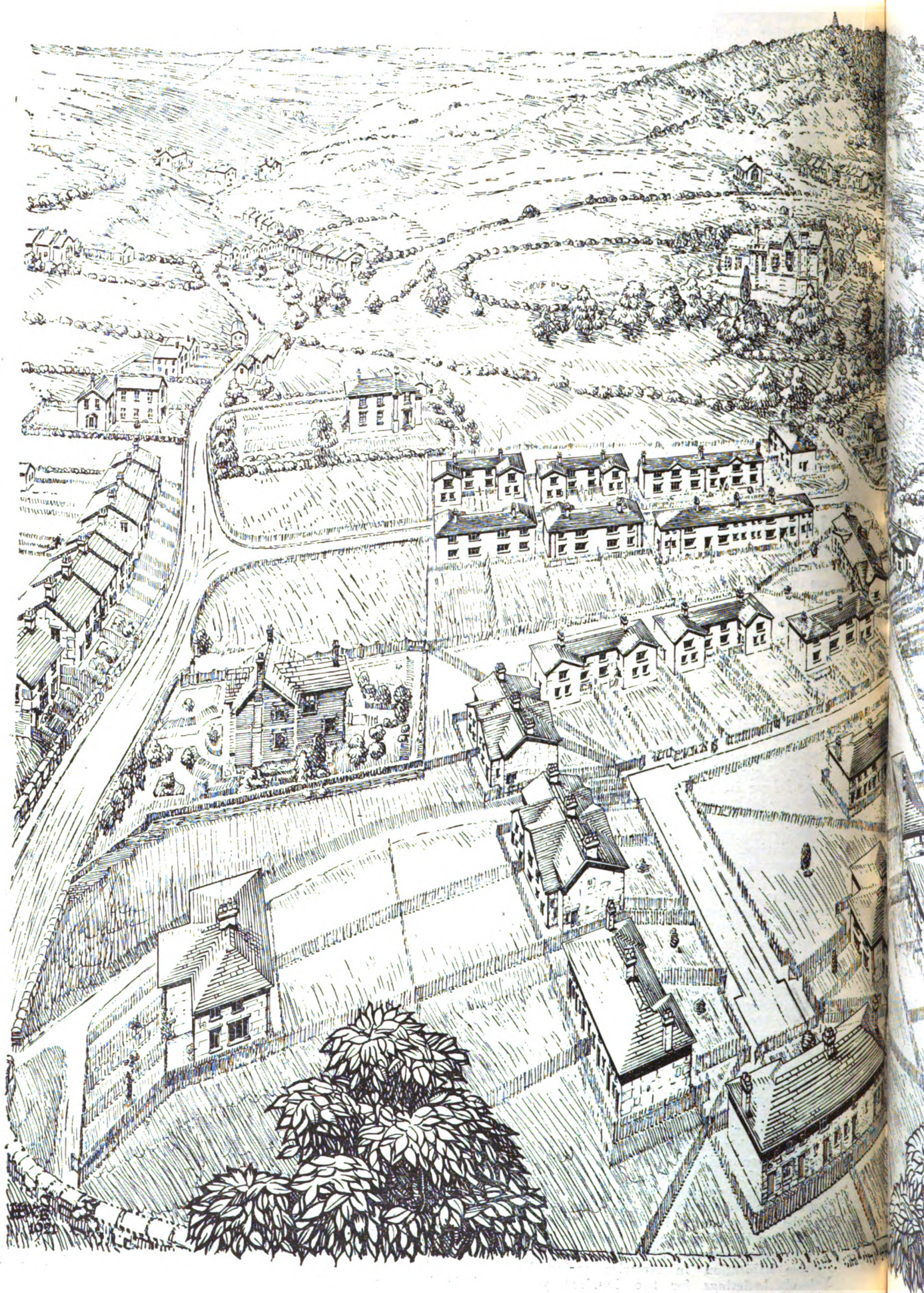
Competition News.

The Town Council of Kirkcaldy have purchased Balsusney House and grounds and propose to erect in the grounds a war memorial. The cost is not to exceed £4,000. The Town Council invite architects and sculptors to submit plans for the memorial. Further particulars and a plan of the grounds may be obtained from the burgh surveyor, Kirkcaldy. The plans should be sent to the Town Clerk before October 31.

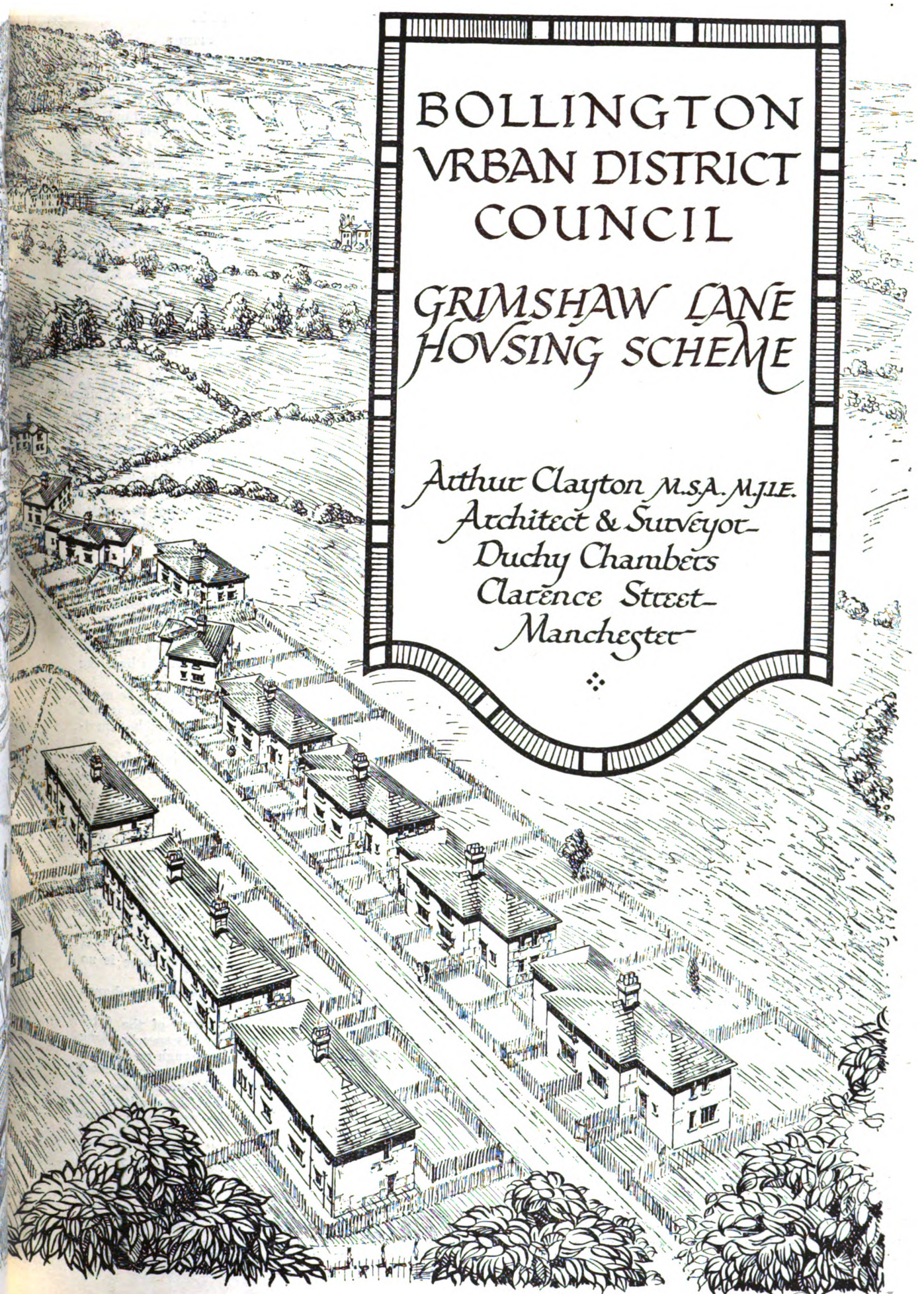
The Hastings Town Council invite competitive designs for a music pavilion, and offer premiums of £150, £100, and £50 for the designs placed first, second, and third respectively. The conditions, &c., may be obtained from the Town Clerk on payment of £1 1s. deposit. The designs, which will be assessed by Professor S. D. Adshead, M.A., F.R.I.B.A., must be delivered not later than November 30.

The Royal Academy Winter Exhibition, to be held in January and February next, will consist of select works by recently deceased members of the Royal Academy. In January and February 1923 it is proposed to hold an exhibition of Decorative Painting and Sculpture, with certain other forms of Decorative Art. Information as to the scope of the exhibition and the arrangements for its formation will be issued later. For November and December next the President and Council are lending a part of the Royal Academy Galleries to the Royal Society of Portrait Painters for an exhibition of portraits.

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Housing Scheme at Bollington.

THIS Government housing scheme is situated on the south-west side of Bollington, near Macclesfield, Cheshire, in close proximity to the station and in the midst of beautiful country. Behind the site is a range of hills from which the whole of the stone for the roadways, footpaths, and facings for the houses has been quarried.

The scheme, which is illustrated on the preceding page, and for which Mr. Arthur Clayton, M.S.A., of Manchester, is the architect, comprises fifty type "B," or parlour houses, and sixteen type "A," or non-parlour houses, making a total of sixty-six houses in all. They are being erected in five different arrangements of plan, the various types of plan giving different elevations, thus adding to the general variety of design.

The houses are being erected in pairs, with the exception of one block of four and two blocks of three each. The site was a fairly level one, but, where necessary, dry rubble foundations have been built to damp-course level.

The external walls are all six-inch stone-coursed parpoints to the front, rubble stone to sides and back, with a two-inch cavity and four and a-half-inch internal brickwork. The whole of the inside walls being of four and a-half-inch brickwork and hollow partition blocks. The roofs are slated with blue Welsh slates.

The contract for the streets and sewers averaged £47 per house, and was let in July 1920 to Messrs. James Byrom, Ltd., public works contractors, Bury, Lancs. who secured the house contract.

The contract for the fifty "B" type houses was let in November 1920, and for the sixteen "A" type houses in February 1921, the "B" type at £1,070 per house, and the "A" type at £962 per house.

At the present time there are about thirty houses slated, and it is hoped to get at least forty covered in before the winter. The stone-walling has proved to be a very slow job, but the results are far superior to brick, and justify the extra labour and trouble involved.

"The Architect" Fifty Years Ago.

SEPTEMBER 30, 1871.

"THE TIMES" AND THE NEW LAW COURTS.

. . . . . .

BUT then "The Times" has made the discovery, that there is such a thing as a Secular style of architecture, that the Ecclesiastical style is wholly unfitted for secular uses, and that this Secular style has a theory of its own, which, however Mr. Street may have studied, he has not yet mastered. To many of us who remember the early congresses of the Archæological Institute, these words of "The Times" sound refreshingly simple. To "The Times" now, as then to the youngest student of archæology, every vaulted cellar of a merchant's house becomes a chapel, and every pointed arch savours strongly of a dark and superstitious faith. To this day the tradesmen of such cities as Bristol, backed up by the imposing grandeur of "The Times," still cling to the notion that their shop cellars were once the gloomy haunts of cruel priests, and that their vaults re-echoed the Abracadabra of ghostly monks. Surely it is high time for everyone to know that a groined vault, whether built for storing merchandise or supporting the floor of a banqueting hall or church, was built to fulfil its purpose *as a groined vault*. We may be sure that its architect or builder never paused to ask ridiculous questions about ecclesiastical shapes or secular forms. What is true of the cellar is true also of the ground floor and every other floor. The ground floor of street houses in the Middle Ages was often constructed as a continuous arcade—a gross error according to "The Times"; for to use arch and pier in such a way is merely to copy the ecclesiastical arrangement of the division between nave and aisle; and all builders and architects who were ever guilty of such work could have known nothing of the theory of the Gothic Secular style. Another discovery made by "The Times" is that "Gothic architecture in England has been almost exclusively ecclesiastic." Does the writer seriously mean that he believes this? If so, then he is ignorant of the thousands of schools built in the Gothic style, of the multitude of parsonages, of the modern college buildings in our Universities, of the Bishops' Colleges, and the Proprietary colleges, of the many houses of charity, and the scores of town halls and private houses and, being ignorant of this, is not aware that he has made an unconscious but unpardonable misstatement of fact. In truth Gothic architecture in England has been almost exclusively Secular.

Correspondence.

To the Editor of THE ARCHITECT.

The Rating of Housing.

SIR,—It seems to me that such an alternative to the present scheme of rates—as is proposed by Mr. S. M. Gibbs, of Sheffield—is quite practical. I cannot understand the apathy of the building trade, especially architects.

The trade has admittedly dropped 60 per cent., and the cause is plainly the rates either directly or indirectly.

Take a case of the simplest form of building, a man with a fixed income, who has saved enough to build a house for himself—say, £1,200.

Take the rates as 15*s*. in the £. He will be assessed at £60 a year, less ¼th, equals £50 rateable value, and pay annually £37 10*s*., which, capitalised at 5 per cent., comes to £750. This £750 must be found in addition to the £1,200 if he is to live at the same rate on his fixed income.

Add a "Rent Restriction Act" and other legislation to undermine all security of house ownership and no one but a lunatic would build.

Investment and speculative building is still more impossible.

Under a system of local income tax, which would be fairly assessed for all, the same revenue would be forthcoming on a secure financial basis. At present the "security of the rates" is no security at all in the less wealthy boroughs and districts. The building trade would revive spontaneously, the housing problem would solve itself without doles or subsidies, and employment, and *permanent* employment, would be found for hundreds of thousands of skilled and unskilled workmen. The gain to the community in created wealth and improved conditions are sufficiently obvious.

The results since the tax exemption of new houses in New York are an excellent example.

The value of land for building purposes would be increased by the capitalised value of the rates less the difference between present losses and profitable building.—Yours, &c.,

A CONSTANT READER.

SIR,—Your leader "How to Make Ends Meet" will be welcomed by all who desire to see a revival of the building industry.

After the War I fully expected this idea would be made the first essential step towards reconstruction, and it was a bitter disappointment to find instead an impossible experiment like the housing scheme actually commenced.

Practically the whole of the Press do nothing to forward businesslike propositions unless they can work up a "stunt."

Your proposition would at once relieve unemployment, and, as both politicians and Press are at present very hot on this subject, it seems a very opportune time to bring it into the limelight.

The land bought for housing by the local authorities (or they might be allowed to acquire more) could be laid out with roads and streets and then leased on long leases "rate free" to private builders at sufficient ground-rents to pay for outlay of capital.

The unemployed could in this way have work of real value without expense to the community, and there is no doubt that rate-free sites would attract builders.

This would keep things moving until a permanent change of our whole rating system could be effected.

Mr. Lloyd George has himself been aware of the fatal defects in the existing one, as proved by his speeches long before the War, and, speaking at Middlesbrough on November 8, 1913, he denounced it in no measured terms. Almost every report that has been made by Royal Commissions and special committees has made it plain what the result of its continuation must be, apart from the conclusion from common sense and experience.

There was an excellent letter in the "Builder" of September 16, which emphasised facts which cannot be too widely known.

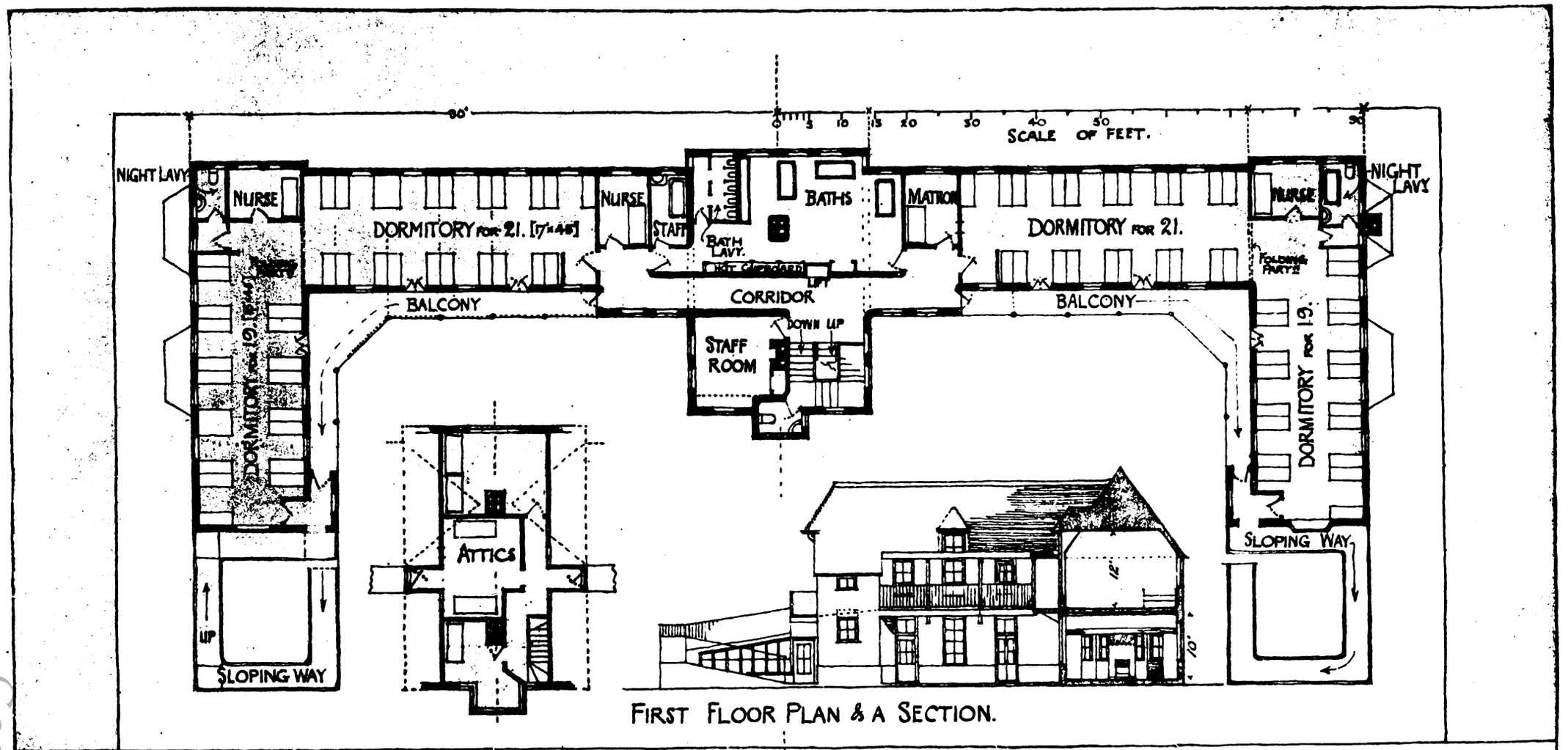
It behoves every man in the building trade, or in any way connected with it, to take no rest until the trade has been restored to an economic basis, in the interests of self-preservation as well as the good of the community.—Yours, &c.,

E. G. HOLTOM, F.R.I.B.A., M.S.A.

Holt, Norfolk.

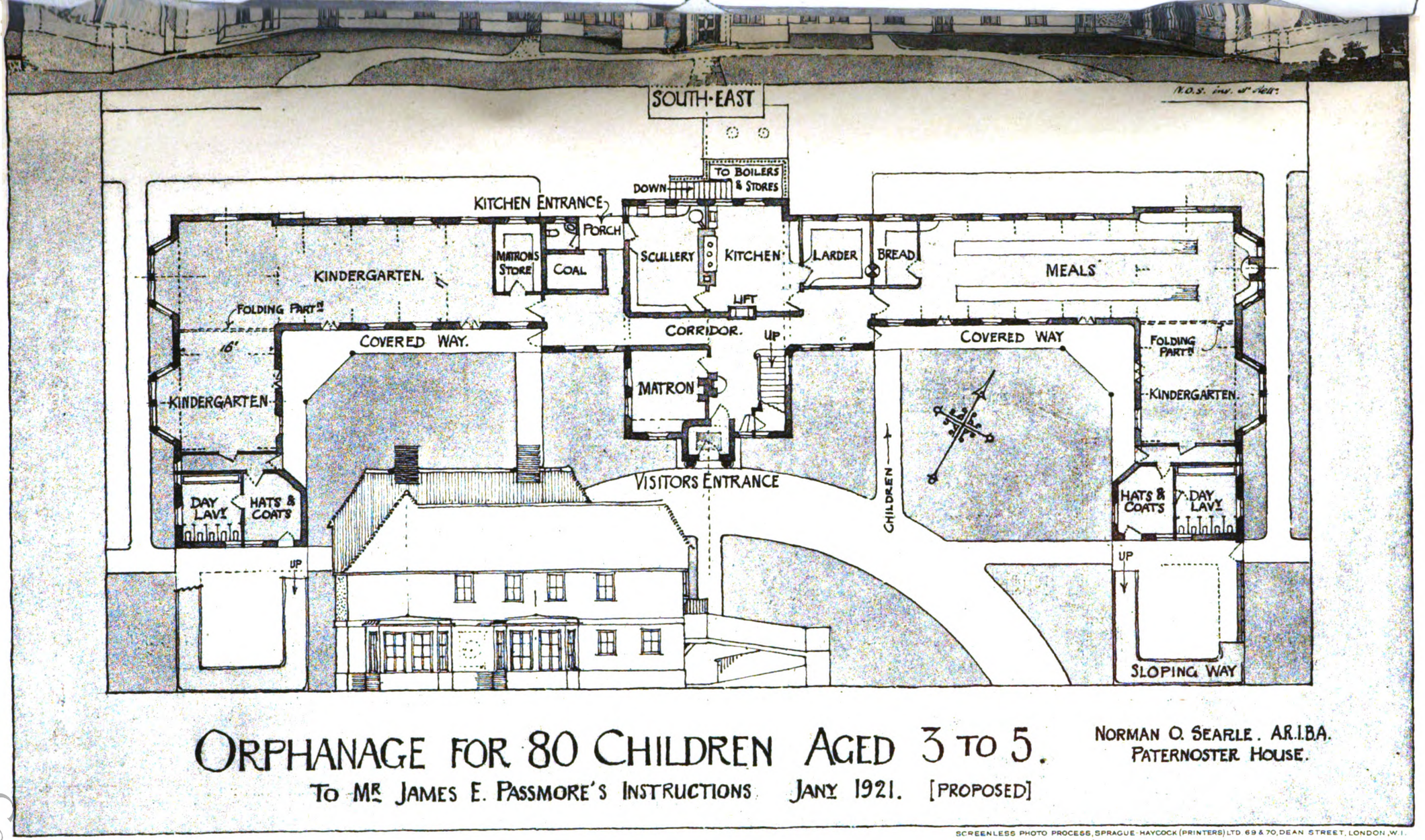
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FIRST FLOOR PLAN & A SECTION.

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ORPHANAGE FOR 80 CHILDREN AGED 3 TO 5.

TO MR JAMES E. PASSMORE'S INSTRUCTIONS JANY 1921. [PROPOSED]

NORMAN O. SEARLE. A.R.I.B.A.
PATERNOSTER HOUSE.

SCREENLESS PHOTO PROCESS, SPRAGUE-HAYCOCK (PRINTERS) LTD 69 & 70, DEAN STREET, LONDON, W.1.

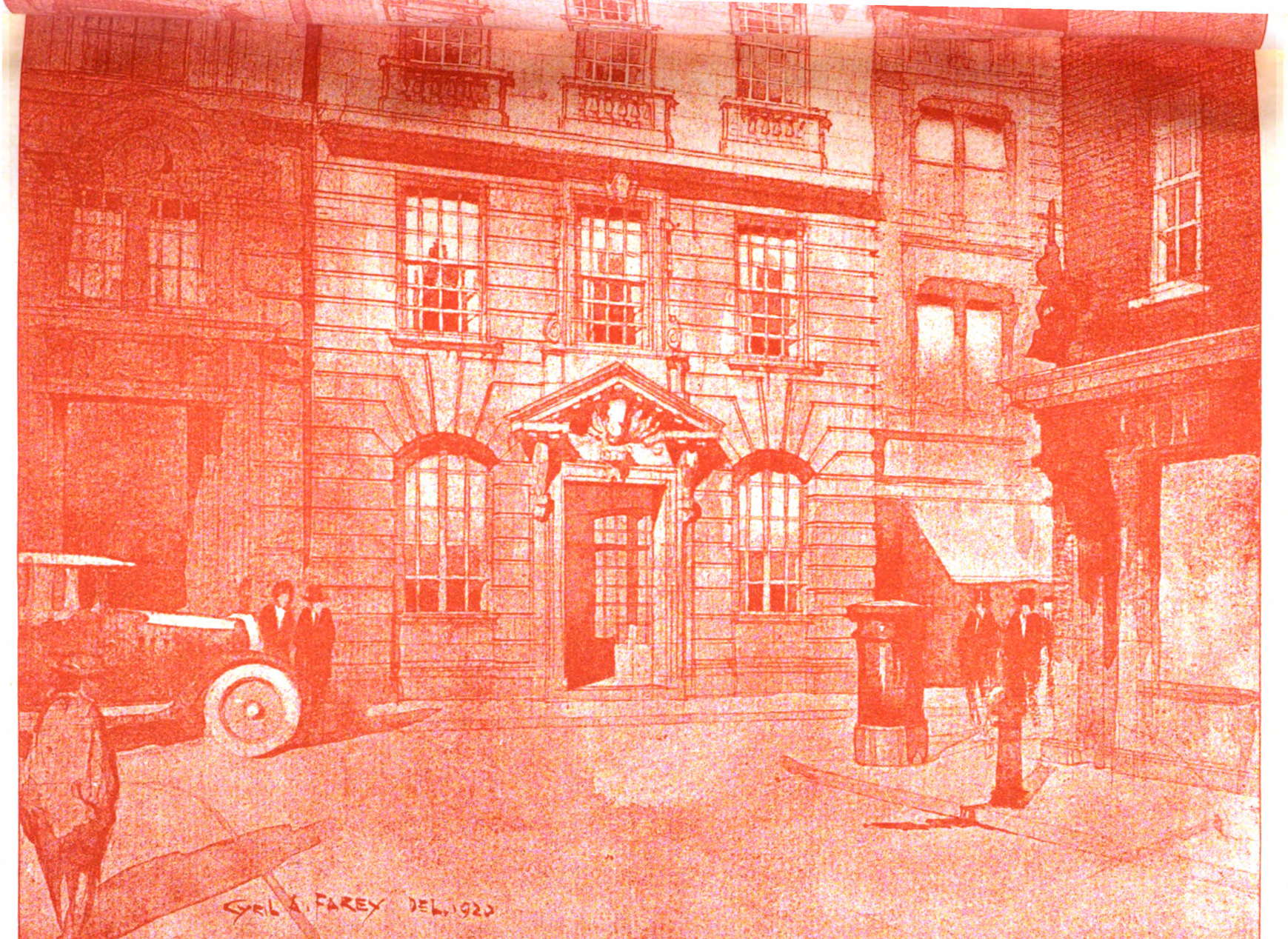
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PROPOSED BUSINESS PREMISES, LONDON: FRONT TO STREET.

HORACE FIELD, F.R.I.B.A., ARCHITECT.

Royal Academy Exhibition, 1921.

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SAINT BENEDICT'S

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HALL and CARETA

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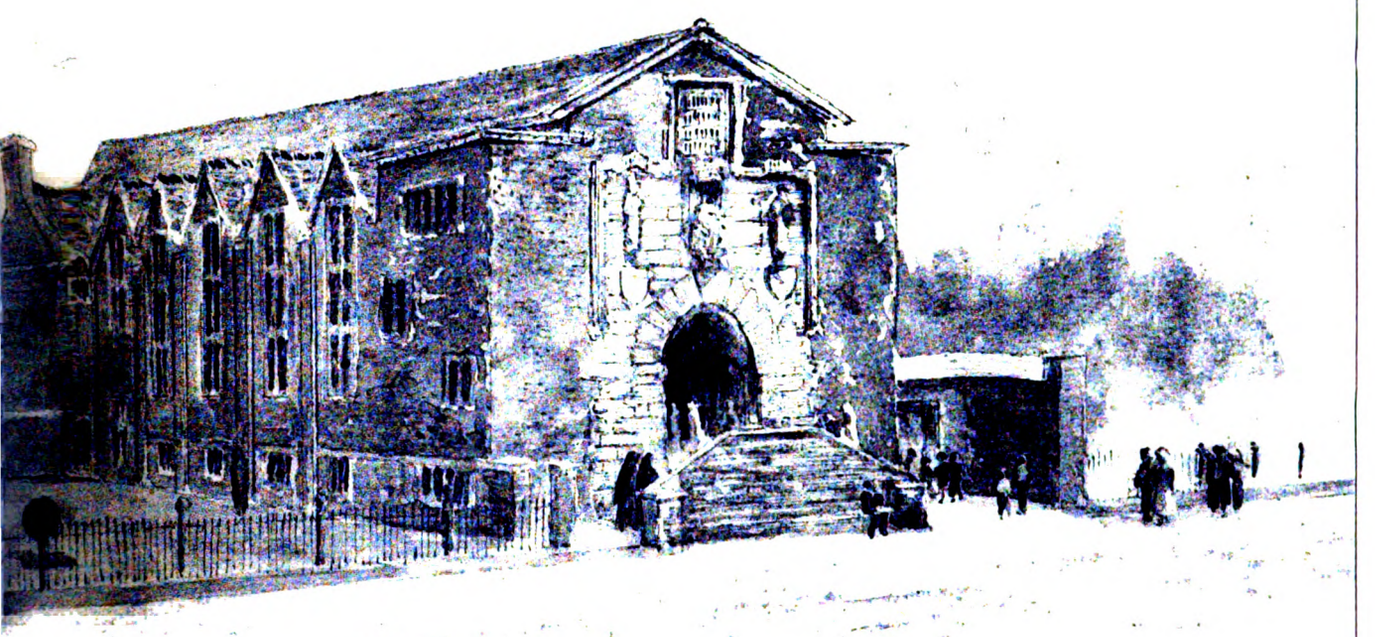
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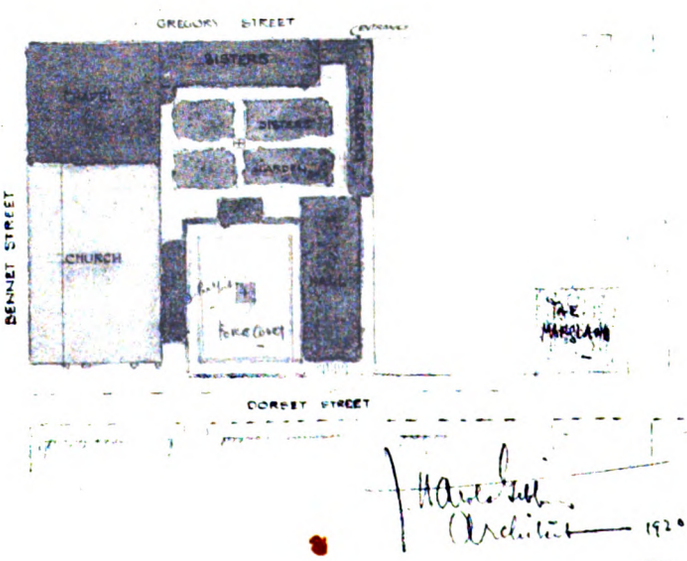
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CLOISTERS AND CONV

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WAR MEMORIAL, ST. BEN





1920

MANCHESTER

MORIAL

R'S HOUSE.

T.

BAPTISTRY & PORCH.

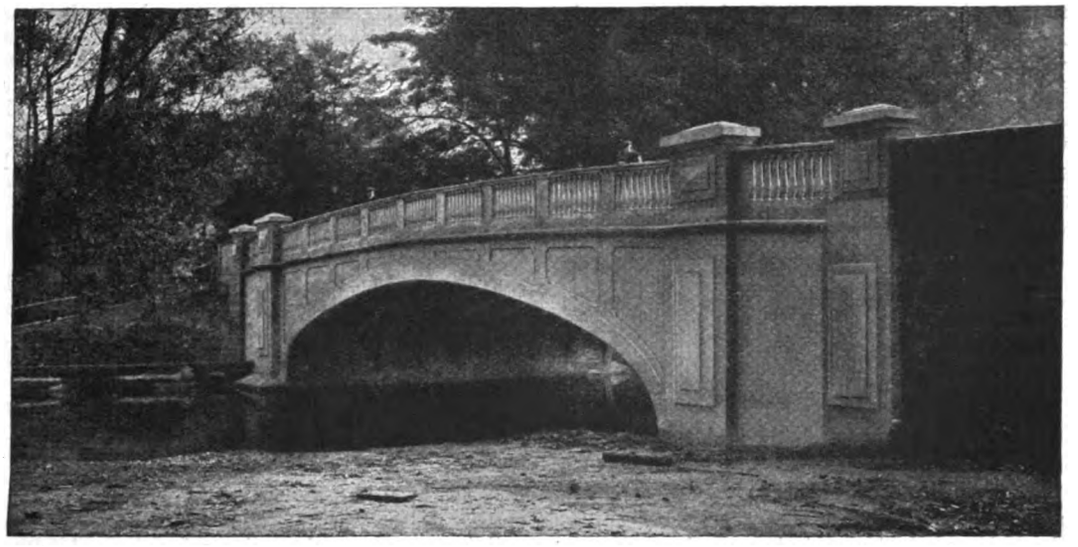
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TUAL BUILDINGS.

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THERE are two ways of accomplishing any result—the simple and the complicated. The simple way is practical and economical, the complicated way is often impracticable and always expensive.

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New Books.

"Building Repairs." By Ernest G. Blake, M.R.San.I., etc. London: B. T. Batsford, Ltd. 8s. 6d. net.

THE title of this useful book very adequately expresses its purport, and in general terms it may well be recommended to those for whose benefit it is primarily intended. At the same time, the fact may be recognised, that the probable pre-War price of 3s. 6d. (or even less) would be more in consonance with what may be properly regarded as the intrinsic value of the book from the reader's standpoint.

The various chapters deal with the different trades, where repairs may from time to time be necessitated. The general contents of chapter II. are well worthy of attention, when repairs by bricklayers, tilers, slaters, and masons are the order of the day. In repairing window arches, where the voussoirs have a tendency to drop, the value of an iron arch-bar to support the soffit might have been pointed out. There is something very curious about the damp-course shown for the buttress in fig. 6, and a reconsideration of this in any future edition may be recommended; as for the arrangement over the flue-opening shown in fig. 9, it is absolutely to be condemned, providing a fruitful source of future trouble with soot.

Chapter III. cannot be commended, in view of the methods of shoring advocated. The chapter on carpentry contains useful memoranda, though even as to this chapter obvious animadvertive criticisms might be offered; the only one to be made here is the necessity of revising the formula given on page 68. Despite trifles in places, the chapter on plumbing, &c., is commendable. It would be better throughout to avoid mentioning patented goods.

"The Structural Engineer's Pocket Book." Compiled by Ewart S. Andrews, B.Sc., Eng. (Lond.), London: B. T. Batsford, Ltd. 18s. net.

MR. ANDREWS is well known, not only by reason of his lectures at technical institutions, but also for his very welcome series of text-books, which have appeared over a stretch of years. If we refer to his meticulous methods it is meant in a laudatory, not a depreciatory, sense. For in a work, such as the one now under consideration, too much care cannot be exercised; and this is partially exhibited by Mr. Andrews's references to his various authorities for details given by him. And before going further, reference may fitly be made to the excellence of the type, used both for text and digits, the latter being quite readable, even where smallest, a merit by no means invariably accompanying books of this class. Of course a great deal of the contents is to be found in innumerable pocket-books already upon the market, but this is inevitable; the advantages of any new pocket-book are to be tested not by the similarity to, but by the differences from, preceding works of the class. So that upon this comparative method we may strongly commend the present work for such tables as that of metric equivalents on page 25, the list of standard integrals (page 30), the somewhat detailed treatment of moment of inertia, loads (including the use of influence lines), the information on bins and bunkers, details as to foundations, &c. Regarding the latter, it might be pointed out that the safe pressures, as given in lbs. per sq. in. and in tons per sq. foot, differ in some instances considerably. A satisfactory index and table of contents deserve notice.

THE death of Mr. J. Wreghitt Connon, F.R.I.B.A., is announced in his seventy-second year. Mr. Connon practised as an architect in Leeds, and with his partner, the late Mr. C. R. Chorley, he was responsible for the planning of numerous public buildings in Yorkshire and elsewhere. For many years he was honorary secretary of the Leeds Liberal Club, and did much useful public work in other directions. Mr. Connon was a past president of the Leeds and Yorkshire Architectural Society. He went to Whitby for a holiday on September 12, accompanied by his wife. He had a severe and sudden attack of influenza and died last week.

New Catalogues.

FREDK. BRABY & CO., LTD., of Glasgow, have every reason to be proud of their record of progress. Forty years ago the works covered less than two acres and employed about 100 men, whereas to-day 1,500 men are spread over thirty-five acres, and the value of the output at the Eclipse Works has increased more than thirty times. In the latest edition of their "Handbook for Architects and Engineers" an interesting series of photographs is included of the large extensions just completed. These include an addition to the engineering shop, 190 ft. long by 55 ft. span by 30 ft. to the eaves; even bigger additions to the steel window and casement department; a new steel bin and furniture department; a new bay to the heavy tank shop; and a new roof-light, &c., department. The range of the "Eclipse" products will therefore be wider than ever, and we feel confident that their quality will not deteriorate. It is pleasant to be able to record such enterprise in face of recent difficult conditions.

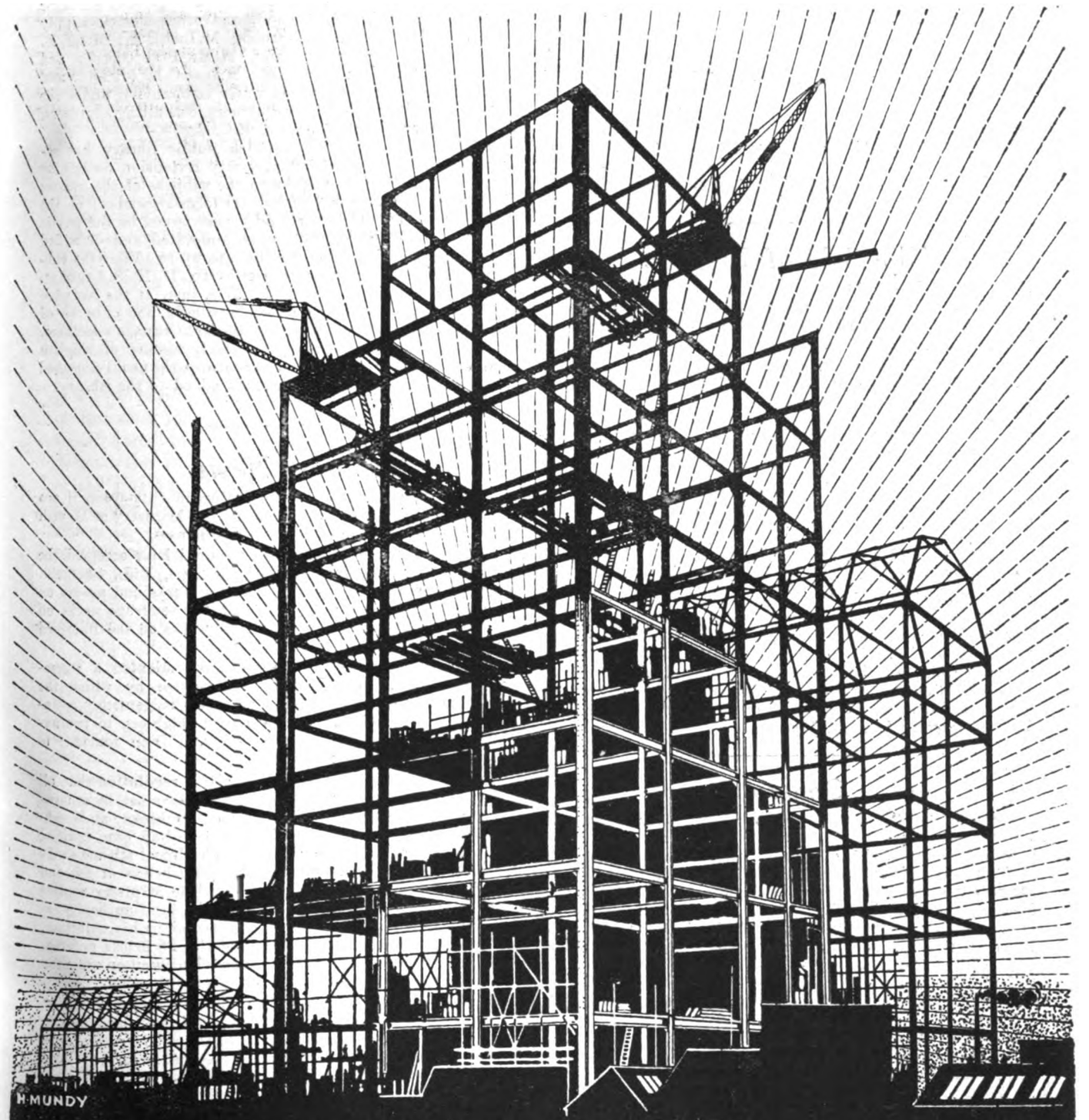
FROM Bell's United Asbestos Co., Ltd., we have received two booklets: one deals with their "Hurcan" building slab, and the other with "Poilite." It may here be explained that "Hurcan" slabs are masses of cement concrete made in seven standardized sizes and faced with "Poilite." The latter has been familiar to the trade during the past twenty years, and is a combination of Bell's fibrous asbestos with best-quality British Portland cement as made by the successors of Mr. John Bell, the pioneer of asbestos as a product of general utility. In a "Hurcan" house the cavity walls are built up of "Hurcan" slabs, the ceilings are of "Poilite" sheeting, and the roof is of red or grey "Poilite" tiles. The company does not undertake building contracts, but places inquirers in communication with the contractor best suited to carry out the particular job. In the second booklet there are designs of numerous types of domestic buildings, the walls of which are constructed with timber framing sheeted with "Poilite" inside and out, and with roofs tiled with "Poilite."

LIST No. GG 212 of the Edison Swan Electric Co., Ltd., Ponders End, Middlesex, is devoted to "Industrial Lighting," and presents in a compact form the most serviceable products for artificial illumination. But the company are emphatic in their offer of the services of a skilled illuminating engineering staff to advise on the many difficult problems. For even a Royal "Ediswan" gas-filled lamp will not be effective unless correctly applied. "Everything Electrical" is the watchword of the company. This catalogue proves it to be justified in at least one branch of their great field of activity. Another list, No. FF 233, which has just been issued, deals with designs and prices of "Ediswan" semi-indirect fixtures for domestic and office lighting. The Edison Swan Electric Co. are justifiably proud of their artists and designers, and are prepared to supply fixture designs which will harmonise with any period or scheme of decoration. But at their numerous depôts all over the country an excellent idea may be obtained of the extensive range always in stock.

It is not often that humour is allowed to aid a building trade catalogue or advertisement. Consequently, if for that reason alone, the booklet issued by J. H. Sankey & Son, Ltd., of 74 Cheapside, E.C., and Essex Wharf, Canning Town, E., for the purpose of describing "Pyruma" plastic fire cement, seems to call for a special word of praise and gratitude. The firm, which was established in 1857, are manufacturers, merchants, shippers, and exporters of firebricks, lumps, tiles, clay and fire cements for every description of furnace and kiln work. So long and wide an experience at once inspires confidence in their claims for "Pyruma." Messrs. Sankey state that this fire cement is "mostly used for repairing and fixing firebrick work, but has 101 other uses. It sets as hard as stone without heat, resists the highest temperatures, is always ready for use, and is cheap." It is sold in two grades, viz. coarse for bulk work and general furnace construction, and as putty for smaller work and lower temperatures. Some of the 101 uses are suggested by humorous headpieces in the manner of Heath Robinson. These range from filling in a crack in a firebrick to repairing temporarily a leaky sparking-plug, or making architectural models. Messrs. Sankey offer free working samples, as well as any technical information required.

Under the title of "Lifts," Messrs. Marryat & Scott, Ltd. (28 Hatton Garden, E.C. 1), have produced a book which is unquestionably a great deal more than a mere

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Milburn House.

GLASGOW
Pinkston.
Office 19, Waterloo St

London City Office:- 3, LAURENCE POUNTNEY HILL E.C.4

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catalogue of their own products. Their avowed aim has been to enable anyone to design his own lift and select the equipment most suited to any particular job. Much valuable and exclusive information is imparted in a singularly lucid fashion. A verbal description of lift machinery, as given, say, at an exhibition, can be a bewildering thing. But it ought to possess no obscurities to the possessor of this text-book. A special chapter describes in detail the method of estimating cost. Particular care is taken to help customers abroad by the inclusion of instructions for coding and specimen cablegrams, price, code, and dimension tables. The company have agents in Cape Town, Alexandria, Bombay, and Perth (Western Australia). Their business is founded on that of Marryat & Place and Joseph Richmond & Co.

The Sale of Reigate.

Never before has an important country town close to London come under the hammer, but for three days next month (October 26, 27 and 28) Messrs. Knight, Frank & Rutley will be selling the Old Town Hall, the hotels, the banks, shops of every description, the motor 'bus garage, the cinema, private residences, numerous cottages and ground rents; in fact, most of the main streets of Reigate, as well as the agricultural and building land surrounding the town. There are over 400 separate freeholds suitable to buyers of every description, and there are few towns within twenty-one miles of the Metropolis with so many and such varied attractions. The present rents produce about £7,830 per annum. The 260 lots will be offered by auction in the Public Hall, Reigate. The town is within an hour of the Metropolis by road or rail, and it is well served by the London, Brighton and South Coast and the South Eastern and Chatham Railways. There is also a frequent omnibus service to London, and the adjacent districts. The building land and agricultural property include sites commanding some magnificent views. The conditions of sale and plans showing the various properties in detail are included in the official sale particulars, copies of which may be had at 5*s*. each from Messrs. Knight, Frank & Rutley, 20 Hanover Square, W. 1; 90 Princes Street, Edinburgh; 78 St. Vincent Street, Glasgow; or 41 Bank Street, Ashford, Kent.

General.

Mr. John Williams, of 28 Sketty Road, Swansea, builder, who died on February 28 last, left estate of the gross value of £22,354 15*s*., with net personalty £16,182 8*s*. 4*d*.

The South Wales Institute of Architects held their annual summer meeting last week when a party of forty visited Ewenny Priory and St. Donat's Castle.

A committee has been formed in Elgin to make preliminary arrangements for the proposed celebration in July 1924 of the 700th anniversary of the dedication of the cathedral.

Mr. J. Gaff Gillespie, architect, Glasgow, has prepared a design for the war memorial about to be erected at Stirling. The sketch, which has been approved, shows a triple arch in Corn Exchange Road. The cost is estimated at £4,290, and of this amount about one-half has been collected.

A large new cinema is proposed to be erected at Moorfields, Sheffield. The ground floor alone has a seating capacity of 1,000 persons, and the gallery is to hold 600 persons. The architect for this cinema is Mr. P .A. Hinchliffe, F.R.I.B.A., of Barnsley, and also of Sheffield.

The history and architecture of St. Bartholomew-the-Great, West Smithfield, E.C., will be explained in the church on Saturdays, October 15 and October 22, at 2.30 p.m., when the crypt and cloister will be thrown open to visitors without charge. A collection will, however, be made for the restoration of the remainder of the east cloister.

Illustrated lectures on "The Great Cities of the World," arranged by the Garden Cities and Town Planning Association, will be given monthly at King's College, London, during the winter. The dates of the first three (on Jerusalem, Amsterdam, and Milan respectively) are October 13, November 10, and December 8.

Messrs. Benn Brothers will publish in October "Town Theory and Practice," by Professor W. R. Lethaby, George L. Pepler, Raymond Unwin, Sir Theodore G. Chambers, and R. L. Reiss, edited with an introduction by C. B. Purdon. The type of town that best serves modern conditions is discussed in detail, and questions of town-planning, industrial facilities, housing, land, and social life in town and country are fully dealt with.

A partnership is announced between Sir Charles Bright, F.R.S.E., M.Inst.C.E., F.R.Aë.S., M.I.E.E., F.I.Radio.E., M.Inst.T.; Mr. A. Seabrook, M.I.Mech.E., M.I.E.E., consulting engineer (late chief engineer and general manager to the St. Marylebone, London, and other electric supply undertakings); Mr. A. J. Stubbs, M.Inst.C.E., M.I.E.E. (late assistant engineer-in-chief, H.M. Post Office); and Lt.-Col. H. W. Woodall, C.I.E., M.Inst.C.E. (director and consulting engineer of gas and water companies), under the style of Sir Charles Bright & Partners, consulting engineers, with offices at 146 Bishopsgate, E.C. 2.

For several years the Norwich public library has co-operated with the Norwich University Extension Society by publishing select lists of books on the subjects of the courses of lectures. The new number (October-December) of the "Readers' Guide" (post free 3*d*.), just issued by the public library, contains a comprehensive annotated and classified list of books on "English Architecture up to 1550," the subject of the course of weekly lectures by Dr. D. H. S. Cranage, F.S.A., which commenced on the 27th inst. at the Norwich Castle Museum. The list of books should not only be of much service to those who will attend Dr. Cranage's lectures, but to all who wish to study the early history of English architecture. The "Guide" also contains the usual classified and annotated list of books recently added to the library.

Housing News.

The Housing Committee of the Cardiff City Council are endeavouring to obtain the consent of the Ministry of Health for the provision of an additional 500 houses.

The Chapel-en-le-Frith Rural Council have accepted the tender of Messrs. Henry Boot & Sons, Ltd., Sheffield, amounting to £582 16*s*. 3*d*., for street works and sewers on the Hope housing site; £193 11*s*. 6*d*. for sewerage works off the site; and £346 11*s*. 9*d*. for street works on the Bamford site.

The Edinburgh Town Council have adopted a recommendation from their Housing Committee by which the density of houses to be erected on the Craigentinny town-planning scheme will be increased from eighteen to twenty-four houses to the acre in one case and from fourteen to eighteen per acre in another.

Criticising the Ministry of Health's regulation that all materials for Government housing schemes must be ordered through the Ministry, Mr. F. Shayler, architect, at Welshpool Housing Committee meeting said he had been notified that bricks were being consigned for Welshpool scheme at £7 per thousand. He could get equally good bricks at £5, and he objected to the Ministry's action. The Ministry replied that the price had nothing to do with the local authority, as they were paying. He, however, persisted in his objection, and he had now succeeded in getting the £5 bricks ordered. Baths for completing some of the houses had been on order for months, but he could not get delivery or go elsewhere.

For the erection of a further thirty houses which the Epsom Urban District Council has obtained permission to build, provided the Ministry of Health consider the terms satisfactory, the lowest tender received is from the Guild of Builders, who are prepared to undertake the work on a contract under which the Council will pay the actual cost, plus 6 per cent. for overhead charges and £40 profit per house. The estimated total cost is £19,520 10*s*., and at the last meeting of the Council further consideration of the tender was adjourned to enable the architects to ascertain whether it is a firm one. The Council's original scheme provided for the erection of a further 161 houses on the Hookfield estate, but this has not been approved by the Ministry of Health.

A meeting convened by the Co-operative Builders, Ltd., the shareholders of which are mainly men engaged in the building industry, was held in Birmingham on Monday last, when an appeal was made for increased interest in the movement, and for additional financial assistance. Councillor E. W. Hampton, who presided, said at the moment they were engaged upon a large contract at Bordesley Green for the Corporation and both the housing director and the Housing Committee had expressed their satisfaction with the workmanship. It was common knowledge that there was a "ring" around the building trade, and those firms in the "ring" were trying to keep up prices of raw materials. The Co-operative Builders were doing their utmost to break that ring, and at the moment they were buying timber from a firm of importers at 15 per cent. less than that asked by the merchants in the "ring."

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The Government of London.

PROBABLY the most interesting, and certainly the most useful, chapter in the London Society's book is that contributed by Mr. W. E. Riley on the Government of London, because it should give those interested in questions affecting the great city a clear idea of the enormous complexity and difficulty of the problem, and because it is written with a full inside knowledge of the subject. Mr. Riley is absolutely right when he states: "We are too much given to panic on the one hand or procrastination on the other to intelligently foresee or solve any great social question." In these words the writer has defined the real cause which lies at the foundation of the futility of a great bulk of our legislation and its enormous and disproportionate expense. The affairs of each of the twenty-eight boroughs into which London is divided are sufficient, if adequately mastered, to absorb the greater part of the attention and time of any average man. That of the County Council may be said to be an occupation which, if properly discharged, needs special education and training as well as demanding an expenditure of time which should make it a man's sole occupation. When we consider that to these bodies further duties and powers are being almost yearly given by Parliament in the form of hurried Acts, frequently involving fresh administrative powers, it is easy to realise why the expenses of administration should rise by leaps and bounds. Public bodies are, in a word, placed between the devil and the deep sea. They are elected by ratepayers who, for the most part, are largely ignorant of the subject-matters to be decided, while they are held responsible for the outcome of a hasty and badly digested mass of legislation thrust on them by Parliament, anxious to delegate matters on which it has no clear convictions to another authority. We quite agree with Mr. Riley that both the officials who quietly and conscientiously endeavour to carry out functions which are very difficult, and the members of the Councils themselves, who give their time and attention to public work gratuitously, are frequently treated with scant justice and consideration by the public they serve.

It is said that evolution often moves from complexity to simplicity, and we believe the remedy for our troubles is not to attempt to build up a complex machine for meeting all the emergencies of our busy modern life, because the attempt will defeat itself owing to the delicacy and elaboration of the machinery required, but rather to make a courageous effort to simplify the functions of government, and, while endeavouring to do justice between all classes, to leave them as much as possible to their own devices. If the average man believes that the State will provide houses, education, and work for him, he will make little effort for himself. It is clear that the State cannot do everything he needs, and also clear that what he could do for himself would probably exceed anything which any State could do for him.

If we take education, it is becoming obvious that we are attempting the impossible in every direction. A reasonable standard of elementary education may be necessary in a civilised State, but the provision of secondary education, followed in certain cases by higher education still, should surely reasonably be left to the individual. Again, in our school buildings we grant the advantage of smaller classes and a greater number of teachers to them; but is this a luxury or a necessity, for which the State should pay? Our school buildings should be healthy and sanitary, but is it necessary that in our latest buildings we should take the advice of medical experts at the cost of the ratepayer? And if we improve our school buildings from a medical standpoint, can we call the work complete unless we insist on an equal standard being maintained in the homes in which children live for the greater part of the twenty-four hours? Nor does the matter end there, for we must provide free meals in some cases, as well as the periodical attendance of oculists and dentists, while we must necessarily, to be consistent, attend to the physical education of children. All the detail attendant on these various items must be dealt with by an army of officials and inspectors, and our tendency is to blame the instruments of faulty and imperfect legislation rather than those who enact the laws which make these results inevitable. And as it is logically clear that the sum of the individual energies of a people which has to provide for its own wants must be greater than anything the most enlightened and scientific Government can do for a people doped and enervated by State help, it inevitably follows that the State, by means of an expenditure which in the end cannot be met out of the resources of the taxpayer, will get a smaller result than if it undertook more modest functions. And what is true of education is true of every form of municipal activity—the provision for the mentally defective, housing, the work which comes under the heading of health, public baths, libraries, the administration of the Poor Law, and other public services, are too numerous to mention. But if, instead of trying to arrive at ideal conditions for the population irrespective of cost, and simply grumbling at the sum to be paid for Utopian measures, based on standards arrived at by expert enthusiasts and approved of by Socialists, we set to work to cut down requirements to the minimum necessary in the interests of the community, the capital cost of all services would be enormously decreased; municipal staffs could be diminished, while we should automatically regain the most valuable of all assets—the fuller individual efforts of every class in the community to secure by its own exertions what it most values. We can manufacture by unwise legislation both fools and loafers, but it is beyond our power to create "a fool-proof" Utopia, and quite beyond our means to finance it.

The Building Laws of London are complicated and difficult, but, although we should like to see the

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numerous Acts and amending Acts codified and simplified, the subject is one of enormous difficulty unless legislation would take the direction of giving much wider discretionary powers to district surveyors, a reform little in keeping with the modern democratic ideal, which is to employ many people and trust none of them. We should ourselves like to see a special self-supporting tribunal formed to which entire building schemes could be submitted for approval, and which should have unfettered powers of waiving any provisions contained in by-laws if they found on examination that the fundamental objects underlying the Building Acts had been met. But, in common with the rest of the burdens of the public, the measures we complain of have their origin in the attempt to achieve the impossible.

When we consider that the London we know is not the result of one homogeneous growth spreading outwards from a defined centre, but a collection of populated districts which have grown together with the effluxion of time, till we now have a populated urban district of seven million people, we are better able to appreciate what has been done in the last thirty years by the London County Council, the first authority to exercise some general functions over its area. Our wonder is not that so little has been done, but that so much has been achieved; and those who are anxious for the future of the great city should do their best, as citizens, not to complicate and overload it with further duties, but to lighten its functions by rejecting further attempts on the part of our legislators to load it with the administration of badly considered legislation, the real aim of which is often obscure to its promoters. Those outside active participation in its efforts should, before pressing on the public great and drastic schemes, learn from the difficulties it has had to meet and overcome that the direction of great improvements can only be determined after exhaustive examination and careful thought. And we should further reflect that the best things we have, both in London and in our country, have been the creation of private individuals and associations of men, rather than that of government, and that by analogy the best we may obtain in the future will probably be gained through similar agencies. Our trade, our commerce, our territories beyond the seas owe their origin and prosperity to the efforts of individuals and self-created organisations, and all that we want from our Government is that it shall ensure a shield of freedom and liberty for all, behind which we must seek by our own efforts to obtain the results the sum of which have in the past given us our position in the world.

We have to remember that the path of wisdom is to interfere as little as possible with the operation of natural laws, the chief of which is the survival of the fittest. We should condemn the folly of a gardener who cultivated plants of value and weeds with the same care, and yet this is parallel to what we attempt to do by modern legislation, with the result that we are continually impoverishing the soil and making it more difficult for the progressive and useful factors of the community to thrive. More than this, we are weakening the only method which has been known in the history of mankind by which men rise to greater powers—the dependence on their own efforts.

We should ask not how the State can do this or that, but what it is the State, and not the individual, must do; and if Government, whether in the form of a national or local authority, undertakes anything else it should be only because it can be clearly proved that it can do it at a profit which would ensure relief, and not additional expense, to the section of the community who are now called upon to pay all the expenses of government.

If our educational system is rightly founded, it should fit men for self-government and self-control, and gradually eliminate the necessity for interference with personal liberty. If it does not, but increases the need of bureaucratic control, it is a condemnation of our system which should make us abandon or reorganise our methods; in any case, it is not a condemnation of the instruments of the system but of the system itself.

Illustrations.

ILLUSTRATIONS OF BRIDGES. (See Article by Charles G. Harper, pp. 224-226.)

PROPOSED HYDRO-ELECTRIC POWER HOUSE AT ASWAN, EGYPT. D. A. Beveridge, Lic.R.I.B.A., Architect. Theodore Stevens, M.Inst.C.E., Consulting Engineer.

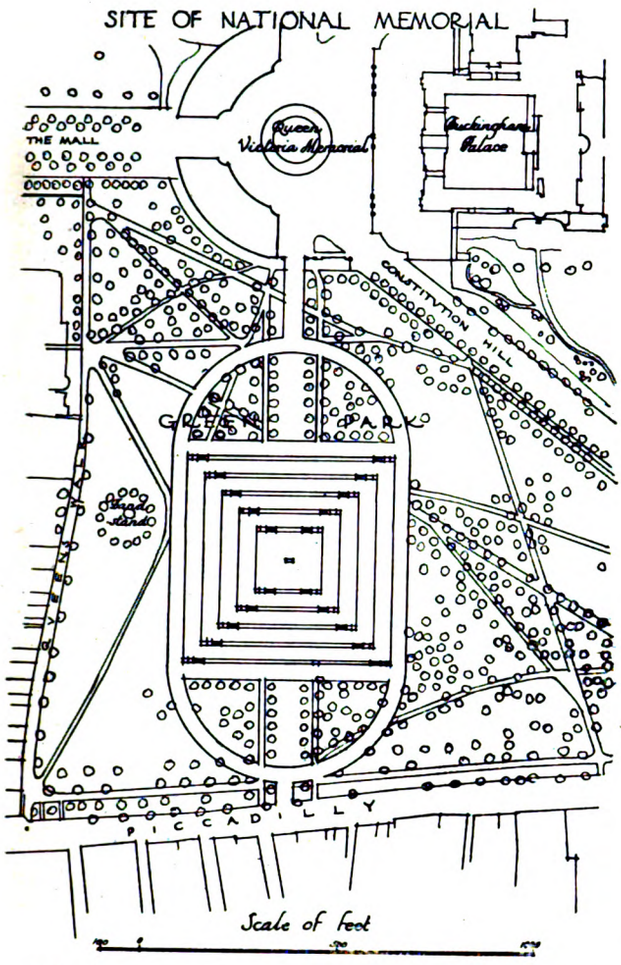
This power house is designed to supply constant power throughout the year and make use of the water flowing through the Nile Dam. The building would be placed on the northern face of the Dam, and would employ the water of a small number only of the sluices. The total plant proposed amounts to 50,000 electrical horse-power measured at the switchboard. The architectural treatment is in keeping with the ancient buildings on the adjacent island of Philæ.

SUGGESTIONS FOR A NATIONAL MEMORIAL. By Thomas Mason, Esq. Drawn by Kenneth M. B. Cross, M.A., A.R.I.B.A.

We are glad to illustrate the design shown in this issue for a great National Memorial, especially as it has been put before us in an unusual manner. Mr. Thomas Mason is neither an artist nor an architect, but one who is convinced that the events through which we have lived between 1914 and 1918, and which have profoundly affected not only our lives, but also those of future generations, and are hallowed by the sacrifices of every class of the community, should be fittingly commemorated. As Mr. Mason puts it, we have erected no great National Memorial since the Middle Ages, when the piety of generations and the power of the Church were emphasised by the erection of our great cathedrals. Only once in the whole history of Europe since the times of the Roman Empire has it been visited by as great a calamity—in the dread years of the fourteenth century, when the Black Death took its toll of the population of Western Europe, a toll which for many years loosed disorder and ruin on a growing civilisation.

The feature of Mr. Mason's scheme which most appeals to our imagination is the idea of emphasising the years of the War by a succession of terraces sculptured with representations of the events of a year of war, each terrace being separated from the next by flights of steps. Nothing better could be devised to visualise to the future the length and weariness of the great struggle in which the greater part of Europe was involved.

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Whether or not the method in which those terraces are designed in the conception shown is the best that could be devised is a detail. The conception itself is both a very fine and dignified one, as well as being entirely original. Mr. Mason's idea of the culminating feature is also fine in conception. He has imagined a simple building of stone, in which the figure of Christ raising the dead to life will be seen through small window openings, the chamber itself being kept locked up, and the conception forming an allegory typifying the new hopes of the peoples of the world inspired with greater and better instincts after the pains and toils of the Great War.

Mr. Mason showed us his idea in diagram, and we advised him to seek architectural assistance in putting it before the public, which he has done in the drawing we illustrate. Mr. Kenneth Cross has in this acted not as a designer, but as a skilled draughtsman trying to represent the scheme as pictured to him by description and by diagrams. In the same manner we have in this general description tried to give Mr. Mason's thoughts and intentions in placing his scheme before the public. The idea aimed at is not so much to represent a monument designed in every respect for actual execution in a specific place, but to enable Mr. Mason to present his conception to the public as one which may appeal in the broadest and most general sense to a people who have lived through the most colossal events in the history of civilisation, events which have left a legacy of suffering and agony to many and have left no one of us unchanged, but at the same time events which we trust will prove in some inscrutable way to have paved the path of mankind to higher planes than it has yet reached. Some of us dream dreams and see visions, but few of us feel impelled to spend time and trouble in embodying our ideas in a concrete form without desire for gain, but this Mr. Mason has done. He will be amply rewarded if his idea appeals in any modified form to others, and desires no personal recognition of his efforts. But our belief is that if the nation desires a great memorial the features suggested may, in some form or other on some site, be utilised with advantage by a great designer, and with that end in view we are glad to give the scheme illustration. We add Mr. Mason's own description.

To the Editor of THE ARCHITECT.

DEAR MR. WILLS,

In accordance with your wish that I should write to you about the National Victory Garden, will you allow me first to thank you for your courtesy in publishing an amateur's idea, and your kindness in taking so much interest in it—allowing it to see the light, and a chance, however remote, to blossom.

The idea is a National Victory Garden to commemorate the Nation's Thanksgiving for Victory, forming an elevated Public Garden, in five tiers of Terrace Gardens, the lower garden dated 1914-1918, the others dated 1915, 1916, 1917, 1918.

Details for design covering six acres are as follows:—Upper Garden 170 ft. by 170 ft., width of Steps 14 ft. 4 in., Terrace Walls 12 ft. in height, Terrace Gardens 45 ft. in width. Allowing for 14 ft. 4 in. width for flagged path with grass between, and 14 ft. 4 in. borders for grass, flowers, and pools (trailing plants at intervals over the balustrade), Base 530 ft. by 530 ft., Total Height 60 ft. On lower terrace wall, between steps on the left of the date 1914-1918, a relief having on the right the British fleet, in the middle the sea, and on the left the enemies' fleet; a relief on the right hand of date 1914-1918, having on right the British fleet, in the middle the sea, and on the left also the sea. A similar relief on the opposite front for the Army. The reliefs might include women working in factories and guiding the plough.

The idea is capable of modification as follows:—The steps should be placed centrally of any width, 6 on a lower Terrace in line with a 7 ft. inner border, and 6 on an upper Terrace in line with a 7 ft. outer border (width of steps: lower Terrace 60 ft., then 50 ft., 40 ft., 30 ft., and upper Terrace 20 ft.) and a walk 14 ft. in width. The width of the Terraces would be 30 ft. The height of the Terraces should be reduced to 6 ft., which, with the balustrades forming part of the walls, would make the walls 9 ft. high, allowing for half life-sized figures on the relief in line with the eye. The pedestals of the steps allow for life-size equestrian statues. The height would be 30 ft., the upper garden 110 ft. by 110 ft., and the base would be 350 ft. by 350 ft., less than three acres.

The proper site appears to be the Green Park, with thoroughfares from Piccadilly Gates to Buckingham Palace Gate, arranged as the plan you have.

With all deference I should like to venture one word in favour of the design covering six acres—that it is pure and not unworthy of the Ancient Greeks.

Believe me,
Yours sincerely,
THOMAS A. MASON.

Temple Court, Reigate.

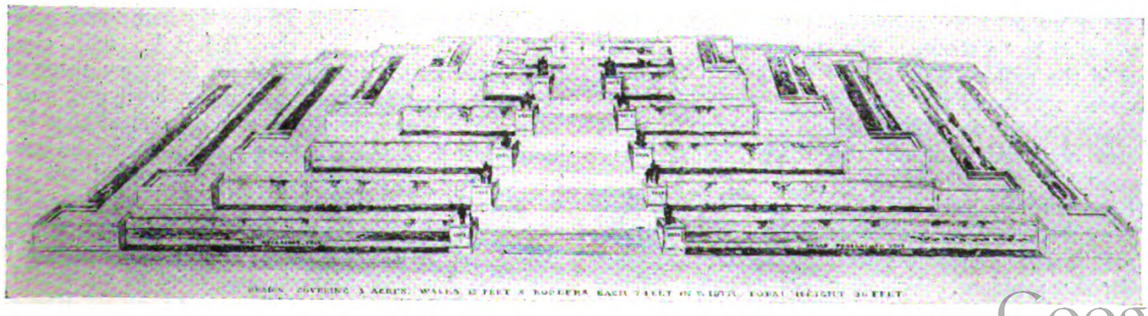


DIAGRAM SHOWING MR. MASON'S SCHEME ADAPTED FOR A SMALLER SITE.

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Notes and Comments.

Old London Bridge.

THE arch of old London Bridge, recently discovered in the process of excavating for the new buildings to be erected on the site, has been the subject of much discussion at a meeting of the City Corporation. Proposals had been made that the arch should be preserved, but it was pointed out that, as the site had been definitely leased for ninety-nine years, this was impossible, or only possible at the cost of heavy compensation for the amount of floor space lost, while if it were excavated and removed its re-erection would cost over £5,000, and that under the circumstances the expenditure of public money could not be recommended. This is, obviously, only reasonable, coupled with which we might add that the arch probably possesses a merely antiquarian interest, and we should be acting in a similar manner to those enthusiastic travellers and amateur collectors who in a lifetime collect an immense mass of bric-a-brac of very doubtful value, and are for ever after troubled by the difficulty of knowing what to do with them. The worship of old things and a careless disregard of the lessons of history are both characteristics of the age in which we live.

Mr. Frank Brangwyn, R.A., as an Architect.

WE have known and admired Brangwyn as an artist, but we did not know till now that he emulated his predecessors of the Renaissance by adding the practice of architecture to his avocations. Mr. Matsukato, a wealthy shipbuilder of Kobe, has made a collection of some thousands of paintings, etchings, and sculptures from Europe and America, together with furniture, tapestries, and an unrivalled collection of Japanese prints and Chinese bronzes of the best periods, and these are to be housed in a great gallery designed by Mr. Brangwyn, which is thus described:—

"Mr. Brangwyn has taken full advantage of the views to be got from the hill on which the gallery is to stand. That is why he has planned loggias so that visitors may see the wonderful prospect in comfort in the shade of the gallery itself. Moreover, there are trees on the hill, and these will be used as an integral part of the decorative scheme. The building, which will cover nearly two acres of land, will be severely simple, and will be square in form, with a courtyard within the inner walls laid out as a beautiful garden, with a fountain in the centre and many trees to give a welcome touch of green. A special feature will be cloisters round the courtyard, in which will be housed most of the sculpture.

"Every bit of space will be used in the gallery for the exhibition of the pictures. The walls will be plain. There will be no embellishments, such as mouldings, pillars and ornaments, and the lighting will be from the roof. The light will be regulated according to requirements. The idea in placing a cloistered courtyard with gardens and a fountain within the inner walls is that these will provide a beautiful *milieu* for the sculpture and a relief for the eyes of the visitor after looking at so many brilliantly coloured pictures.

"The gallery will be different from any yet built. Its first intention is utility. Its second is that it shall harmonise with its surroundings of native architecture and scenery without giving it a purely Japanese character. That would be unsuitable, as it is a gallery devoted to Western art and designed by a Western artist. So I made it as simple as I could. I did not want it to look like 'a stranger in a strange land.' When the plans of the gallery were shown to some of the leading Japanese architects the feature they most liked was its simplicity and the fact that, though Japanese in style, it was not obtrusive and did not appear alien to its environment."

We hope we may have the opportunity of illustrating this building, as, after the strictures of Mr. Fry on architects' work, it will be most interesting to see how a painter deals with the problem. We may, we suppose, take it that Mr. Brangwyn has been relieved of the effort of making working drawings and of superintendence, which are tasks usually undertaken by his colleagues.

The Ulster Houses of Parliament.

THE Ulster Society of Architects has protested, and we think with reason, against the proposition made that the coming competition for the new buildings should be limited to six selected architects. Apart from any technical question as to the relative merits of open and limited competitions it should, we think, be remembered that in this case there is a great question of sentiment to be considered, and sentiment which we should all sympathise with. Throughout our troubles in the past the people of Ulster have never wavered in the most difficult epoch in their loyalty to the British Empire. We may almost say in parenthesis that in this they have been more loyal than many of the inhabitants of Great Britain. They have, after a struggle, which is comparable with that waged by any country for freedom, obtained a separate existence, independent of the disloyal section of the Irish people. All that the Ulster Society asks is that everyone who wishes to compete for its first national buildings shall have a fair field and no favour, and it is for any architect in Great Britain or Ireland to prove by actual results that he can produce the finest design. Technically also where a mixture of open competition, with the inclusion of selected competitors, has been employed, it is almost always some unselected competitor who wins; a fact which goes far to prove that the open, rather than limited, competition is likely to secure the best result.

Dr. Addison and Wakefield.

DR. ADDISON, like one of Marryat's characters in "Peter Simple," may yet discover that "zeal" is not an excuse for everything. Apparently he asked leave to visit Wakefield in a purely private capacity with a few friends, and was hospitably entertained by the Mayor. Subsequently it was surmised that Dr. Addison's visit might be connected with propaganda purposes. One secretary of the party was asked if this were so, and told that the name of Wakefield must not be quoted in connection with such purposes. The secretary replied that Wakefield would not be mentioned, though the facts obtained might be used. Dr. Addison subsequently spoke of Wakefield as being "the worst place on earth." At a meeting of the City Council the alleged breach of faith was discussed, and the opinion expressed that it was odd that when Dr. Addison was in office and had full information before him he did not consider it necessary to visit the City. A Labour councillor described the position more coarsely by saying that when a man "got the sack" it was a common practice to find fault with the man who took his place.

Mr. G. Northover.

EVERYONE who knows 9 Conduit Street will feel the loss of an old and trusted friend now that Mr. Northover has retired, leaving a field in which he has made his usefulness felt to all. The high position which the "Journal" has held for many years is the result of his untiring efforts, and we have always felt that had he not been so closely bound by financial exigencies he would have given the R.I.B.A. a publication which might have rivalled that of the "American Institute," which is among the best of all architectural publications both in the high quality of its contents and the artistic excellence of its production. But like the library, the "Journal" has always been starved, and by this starvation Mr. Northover's efforts have been constantly hampered. We hope that the Council of the R.I.B.A. will elect Mr. Northover to the position of an honorary associate, and we trust his retirement will mean both rest and happiness. We have sometimes almost wished that he would be indiscreet, but in the long years in which he has served the Institute he has always been a model of tact, so much so as to rouse curiosity as to his real opinion of the men with whom he has mixed for so many years. Should he ever write an autobiography we are sure it would be read with the greatest interest, and most of us would obtain light on points that are obscure to us. But all who know and value him will know that in losing an official the members of the Institute have retained a friend.

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New Books.

"Homes of the Past." A Sketch of Domestic Buildings and Life in England from the Norman to the Georgian Age; with a proposal for preserving certain typical houses each to be furnished as an example of its own time. By W. H. Helm, with fifty-nine illustrations from pen-and-ink drawings by A. C. Chappelow. London: John Lane, The Bodley Head. £2 2s. net.

This work may be said to have a double object, the one being to describe and illustrate not only the buildings of old days in this country, but also the way people lived, their food, and their furniture; the other being connected with the author's suggestion for the conservation of certain typical houses, furnished in their own period in each case. In this connection the author gives in his Appendices at the end of the book, the full text both of the Ancient Monuments Consolidation and Amendment Act of 1913 and of the French "Loi sur les Monuments Historiques" of the same year; and this portion of the work is so important, notably in view of the recent movement towards the better preservation of our national monuments, whether ecclesiastical or otherwise, that I shall give it special attention.

"The chief object of the present book," writes the author in his first chapter, "is to advocate the selection and preservation of a certain number of houses, either in London or within a convenient distance of London, each of which shall be an original example of a particular period in our history, shall be furnished, as far as is possible, with original examples of the furniture of its own age, and shall be maintained as a national possession. . . ." "Thus," he adds in an earlier note, "instead of seeing private houses filled with miscellaneous furniture, or visiting museums where furniture of all ages is, at the best, arranged progressively in galleries, those concerned to know what the home of a family in any age from the twelfth to the eighteenth century was like could visit, say, 'The Tudor House,' or 'The Restoration House,' and enter, for the time being, into the atmosphere of a past period more fully than is ever possible in a museum."

Before going further into this proposal, which has certainly considerable merits as well as difficulties (the financial side naturally presents itself), it will be of advantage to examine in detail some of the buildings in this country selected by the author, not directly in connection with this suggestion, but as typical of certain defined periods. The first of these, described under twelfth-century houses (Chap. III.) is Boothby Pagnell, "a well-preserved Norman house, which stands in the grounds of a comparatively modern residence in Lincolnshire. . . . The old house stands facing eastward, its base now almost concealed by grassy mounds. Around it there used to be a moat, long since filled up. The length of the building is about 66 feet, its breadth, excluding the wing on the west side, about 35 feet. . . . The large window of the first floor, which lights the principal room or hall, is obviously of very much later date than the house as a whole."

In the interior the hall chimney, reconstructed in the last century from the original stones, was, as Mr. Helm remarks, "in a comparatively small hall such as this a luxury to be prized"; and he considers that the furniture in the hall would have a great slice of oak-tree on trestles for the table, rough benches, and one or more oaken coffers, while there might be woven hangings on the walls, and almost certainly rushes on the floor.

The sleeping accommodation would then be limited. "If there were any bedstead at all it is likely that only the master and mistress had such a luxury. . . . The retainers lay down to sleep on whatever pallets of hay or straw were provided." We are far from the comparative luxury and plenty of Tudor times.

In the fifteenth century we find both stone houses and brick and timber in use, or the two combined, as at Compton Wynyates. "Among the brick and timber houses," says Mr. Helm, "Ockwells has few serious rivals . . . all the typical features of the fifteenth-century house are to be seen at Ockwells." Begun in 1464 by Sir John Norreys, who was High Steward to Henry VI. and later to Edward IV., it lies in Berkshire, in a stretch of well-wooded pastureland. Glass was then a possession, and the abundant lighting is a feature of this noble mansion, as well of others in this and the century following; in the carving of that time Italian influence in the grotesque heads with floriated surroundings is already to be traced.

For a London merchant's house in the seventeenth century, the author selects No. 10 Neville's Court, Fetter Lane. "Simplicity, balance, durability, were the chief qualities of the house-building of that great period, when Wren was the ruling architect, and this house . . . if not of his design, would not be unworthy of his fame." For eighteenth-century design in its early years, when Dutch influence was making itself felt with the coming of William of Orange and even later, No. 80 Pall Mall (dating 1699) is chosen and illustrated; and, it may be noted, is also the house where the lovely Emma posed later as the Goddess of Health. "No street or part of London," adds Mr. Helm, "preserves the atmosphere of the Augustan Age better than Queen Anne's Gate. . . . Internally such houses were, and are, notable for the fine proportions of their principal rooms, the ceilings high, and floor space ample for most purposes of family life." Not the least interesting pages of this work are those devoted to furniture and conditions of domestic life in the periods taken, which extend from the Norman kings to the Georgian epoch. S. B.

"Sculpture of To-day." By Kineton Parkes. Volume I. America, Great Britain, Japan. London: Chapman and Hall, Ltd., 1921. Price 25s. net.

In this volume, which leaves, very wisely, for later treatment the art in sculpture of Continental Europe, of France, Italy and Spain, Belgium and Germany, and devotes itself mainly to the British Empire and America, the author has accomplished a very useful work. His plea for a better recognition of the merits of sculpture in this country is not overstrained and is just; though, as myself one who has always been profoundly attracted by this art, I have found very often latent but deep appreciation in unexpected quarters, which surely only needs encouragement to come out yet more strongly; and in this connection I cannot avoid referring to the wonderful work done for sculpture in America within quite recent years by her National Sculpture Society.

Northern America, imbued with the Puritan tradition —which is not friendly to any, and least of all to plastic art—and absorbed in the development of her immense material resources, was by no means a favourable soil; yet within half a century a movement has developed which has covered her State buildings with fine original sculpture and produced such masters of their art as St. Gaudens, as Daniel Chester French (whose admirable "Abraham Lincoln" at Washington and his "Memory" of the Metropolitan Museum are reproduced in this work), as Cyrus E. Dallin, the sculptor of Indian life, as Frederick Macmonies, George Grey Barnard, Solon H. Borglum, and among the moderns French's pupil, Augustus Lukeman, Davidson, Paul Manship, and Herbert Heseltine, both of whom have recently exhibited with success in London, though the latter, who is now exhibiting his brilliant equestrian work at Agnew's Manchester Galleries, is overlooked in this work.

Full justice is, however, done to modern British sculpture, the works selected for illustration being from Hamo Thorneycroft, Drury, Derwent Wood, Frampton, Pomeroy, Colton, Turner, Henry Poole (whose delightful "Nereids" is given), Walker, Eric Gill, Epstein, Reid Dick, and Gilbert Bayes. Mr. Kineton Parkes in his text is illuminating and appreciative, without being severely critical; most useful is his chapter on the methods of the sculptor, and even more so his remarks on such issues as those raised by the claims of "direct workers" against the tactual fascination of clay or wax. S. B.

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Report on the Use of Electricity in Working-Class Dwellings.*

THE British Electrical Development Association have produced a very well-thought-out publication on the subject of lighting and heating, incidentally, naturally, to make out a fair case for the adoption of electricity for lighting and heating purposes. But in doing this they have not relied on general statements, but have prepared a definite report on the basis of one of the Ministry of Health's housing plans, which is shown as it would have to be arranged in those ways according to whether coal, gas, or electricity were adopted for heating purposes. Bills of quantities are appended which give exact details of the work to be added or omitted in each case according to the method adopted, and the prices in these quantities are based on current London prices, which have been verified by Messrs. Higgs & Hill, Ltd., as being correct. The quantities for the electric installation have been prepared and priced by Mr. Alan Kirk, electrical engineer.

For purposes of comparison, the cost of erecting the cottage is taken as being £660, after deducting the fires and their adjuncts, chimney breasts and hot-water services. The additional work required for cooking and heating amounts in the case of the coal-heated house to £182 11s. 7d., in the gas-heated house to £216 12s. 2d., and in the case of the electrically-heated house to £182 8s. 11d.; but in the case of the coal-heated house no provision is made for lighting, while in the others the quantities include lighting by gas and electricity respectively, additions which render the electrically heated and lighted house the cheapest of the three.

For some reason which is quite adequately explained, an "Interoven" stove is taken in all three cases in the living-room. Mr. Blair Imrie says: "It is now possible to obtain many types of stove which combine the advantages of a range with an open fire, and there is no doubt that a combination fireplace of this class is, on the whole, the most satisfactory means of warming a living room, cooking, and heating water during the cold months in small houses." He goes on to say that an alternative method of cooking is desirable during the great part of the year, the alternative being either a gas or electric cooker. Further, some means of heating water is required when the stove is not in use, such a means being supplied in the coal-heated house by a side-boiler to the scullery stove or by a copper, where gas is available by a circulator or geyser, and where electricity is employed by an electric geyser or heat storage tank. Mr. Imrie is undoubtedly right in his statement that most occupants of a cottage would prefer to have one coal fire, but the comparison would be still closer if he had assumed that in the case of the electrically heated house none but electrical heating apparatus would be employed. Still, the comparison is a close and interesting one, and is chiefly remarkable as showing the small differences in cost when arrangements are made at the outset. We give illustrations of the plans shown in the report, and will quote from the report itself:

The "Coal" house is illustrated in Plan No. 1. The living-room is fitted with a stove of the Interoven type which warms the room, cooks food, and heats the water for bath and sink. A small portable range is placed in the scullery for summer use; this has also a side boiler for the provision for hot water. (There are types of stove which enable the fire to be used either in kitchen or scullery at will, but this arrangement, although satisfactory in some cases, much restricts freedom in planning.)

The parlour is fitted with a mantel register stove of modern type, and similar patterns are used in the bedrooms.

The "Coal and Gas" house is illustrated in Plan No. 2. The living-room is also fitted with a stove of the Interoven type, and with a gas stove in the scullery. A gas circulator or geyser provides the secondary method of water heating. Modern shallow built-in gas fires are fitted in the bedrooms and parlour. Ventilation is secured by outlet flues, as recommended by the Ministry of Health, although this method alone cannot be regarded as entirely satisfactory. In equipment of this class it is important that an efficient hood connected to a flue should be fitted over the gas cooker.

The "Coal and Gas" house is more economical in construction than the "Coal" house, the cost of chimney breasts and flues being reduced, but the saving effected by the small gas flue is not very great, as although less material is used the labour on the small flue is proportionately more than on the large one.

The "Coal and Electric" house is illustrated in Plan No. 3. Again the living-room is fitted with a stove of the Interoven type, and an electric cookery range is also provided. The secondary method of water heating is by means of an electric geyser, circulator, or heat storage tank, according to local circumstances.

In the parlour and bedrooms plug points for electric fires are provided, but it is generally only necessary to supply one or two portable fires for use in the four rooms as more than two are unlikely to be required at one time. In each room a controlled "hit-and-miss" inlet ventilator is provided, and also a silk flap outlet ventilator (all except two enter one ventilating flue). Full power of ventilation control is in the hands of the occupiers.

Apart from the comparative economy of material, the reduced provision for use of raw fuel permits greater freedom in design; in this respect the electric house is supreme, cookers, fires, and other electric appliances have the smallest possible "fire risk," are not permanently built into the structure, and calling for no special flues or foundations, permit the architect to make the best arrangement in regard to the site, natural light, ease of access, and working.

The heating appliances being quite independent of flues or fuel supply, can be placed in any position most convenient to the user, and economical in relation to the situation of doors and windows.

Similarly in the daily work of the house great advantages are realised; electrical apparatus for cooking, ironing, &c., can be placed where most handy for water, light, and items of equipment the use of which is associated with it, so saving in time and reducing "carrying" distances.

The system of lighting used bears a relation to the height of rooms and to the convenience of the occupiers in this respect.

Electric lighting can be provided in pendant form without occupying more than say, 9 in. in depth, from the ceiling. It is difficult, if not impossible, to work in so small a space with a gasfitting or a hanging oil lamp, and the result, as is so often seen, is that gas and oil lamps are largely used in the form of brackets, by no means the most efficient way of lighting small rooms, or where they are used as pendants from a ceiling it is generally only over permanent furniture positions—for instance, in a living-room over a table.

Apart from the operations of cookery considerable quantities of hot water are required in the home; the greater part of such supplies should be and can be obtained from the principal fire which, in the case of these small houses, also warms the living-room, and may perform a certain amount of cookery.

During a considerable portion of the year, however, the use of a living-room fire is unnecessary, and as a means only of obtaining hot water is often a source of waste and discomfort.

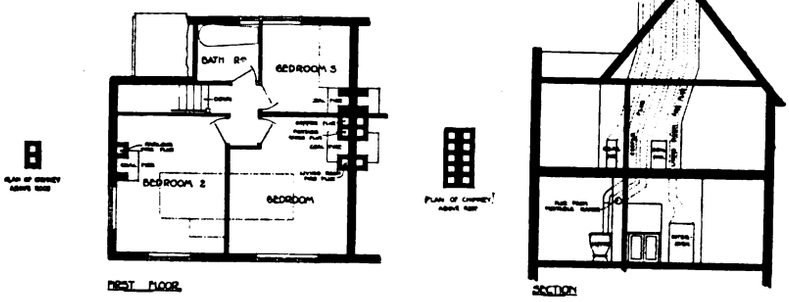
In the house fitted for electricity provision can easily be made for water heating with a minimum of trouble and heat loss, wash boilers heated electrically are in satisfactory use, and general supplies of hot water are obtained by the employment of either electric circulators fitted into the existing hot-water system of the house or by storage tanks and cylinders which are automatic in action, being fed through a ballcock from the cold supply, and the contents heated up by electric elements which absorb a relatively small amount of energy over long hours (e.g., through the night), and owing to their construction and heat insulation accumulate the energy in the form of hot water ready for use at any time.

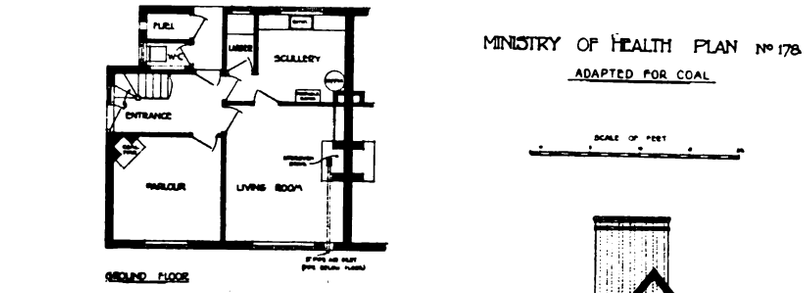
Rates and charges for electricity supply will naturally vary in different districts in accordance with the current prices of gas or coal, and may also be subject to allowance for the ability and willingness of the occupants to put a money value upon the superior convenience and the indirect economies arising from the use of electricity.

Tariffs framed for this class of supply should aim at simplicity, encourage the use of electricity in place of other means of heating, and at the same time secure that the

* "Report on the Use of Electricity in Working-class Dwellings." Prepared for the British Electrical Development Association by Messrs. G. Blair Imrie and T. G. Angel, Architects. 10s. net.

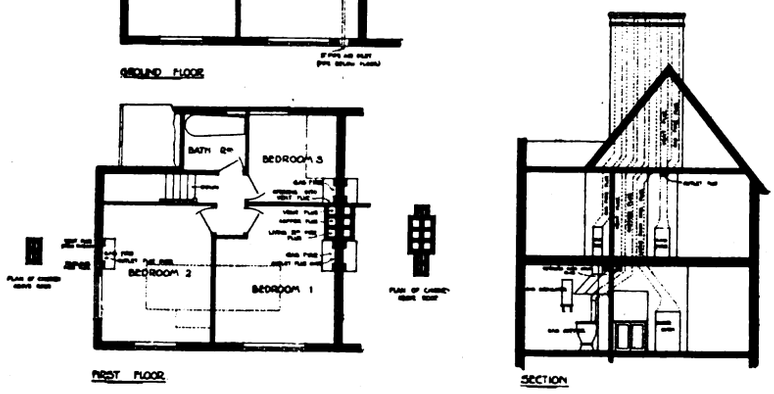
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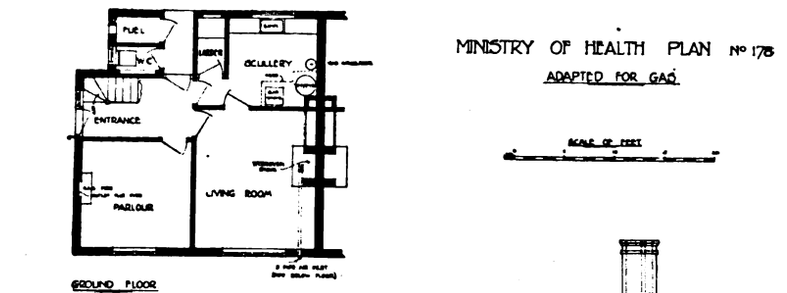




MINISTRY OF HEALTH PLAN No 178
ADAPTED FOR COAL

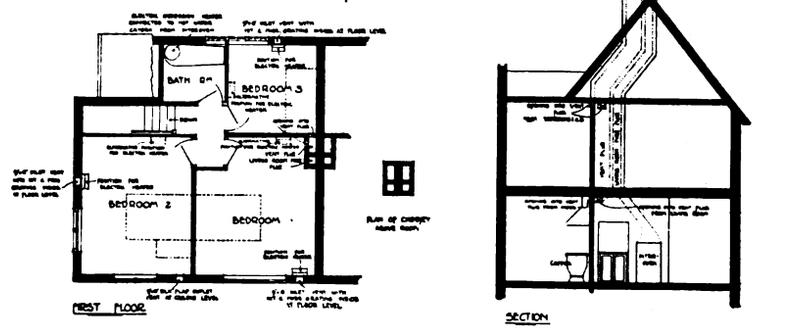
SCALE OF FEET

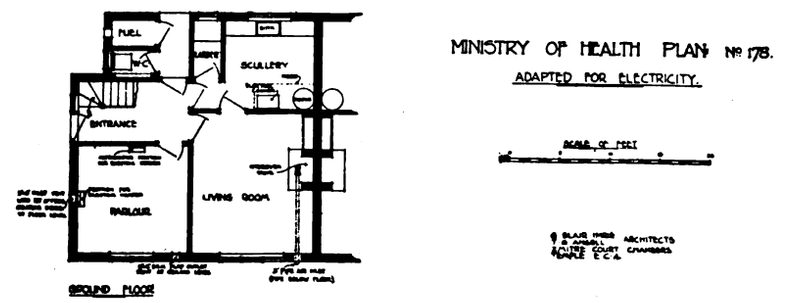




MINISTRY OF HEALTH PLAN No 178
ADAPTED FOR GAS

SCALE OF FEET





MINISTRY OF HEALTH PLAN No 178.
ADAPTED FOR ELECTRICITY.

SCALE OF FEET

BLAIR IMRIE ARCHITECTS
& ASSOCIATES
ADELPHI COURT CHAMBERS
STRAND W.C.2.

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smallest users shall pay sufficient to cover the standing costs of service to them.

The opportunity of catering for large numbers of houses similar in size, and probably also in the habits of the occupants, suggests the use of the so-called "Multipart" systems of charging, in which an amount (possibly varying with the season of the year) is collected from each house per week or per month, such amount being sufficient to cover standing costs, and representing a large percentage of the payment which can be obtained from the consumer for normal lighting requirements.

In addition to this fixed charge, all electricity used and metred is then charged at a relatively low rate per unit.

This method requires only one meter and one system of internal wiring on which (within the limits of its capacity) any apparatus can be used in any part of the house without the difficulty which arises where energy is sold at different rates for lighting and heating.

Where this system of charging is agreed upon at first it becomes possible to combine the heating and lighting wiring, and to reduce first cost by a substantial percentage; costs of maintenance and account collection are lower, less supervision of the consumer is called for, and the simplicity of the arrangement appeals to him.

The Multipart tariff, moreover, has the merits of flexibility, it encourages additional use, does not penalise the consumer seriously for inadvertent waste, but yet registers and charges for every unit taken, so avoiding the complaint, which sometimes arises under contract or "non-metred" systems, that the wasteful user is encouraged.

Summing up, we should say that where the best appliances of any kind are used in a well-arranged house the occupants have little to complain of. The best modern grates are both clean and economical, and an undoubted advantage is that the cooking and heating apparatus used is not likely to cost anything to speak of in upkeep. On the other hand, as compared with both gas and electricity, coal heating produces a certain amount of dirt and gives a certain amount of labour.

Gas saves labour and is cleaner, but not absolutely so, while the appliances used necessitate a certain amount of renewal from time to time.

Electricity can produce no dirt or fouling of the air, but it also necessitates certain renewals of parts of appliances from time to time. On the other hand, greater cleanliness is obtained.

The working costs are a variable item, depending as they do on the current prices of coal, gas, and electric power in different districts from time to time.

Competition News.

Kirkcaldy War Memorial Committee considered at their last meeting a communication from the Royal Institute of British Architects pointing out that none of its members could submit designs in connection with the tribute which Kirkcaldy proposes to erect to its fallen sons unless an assessor were appointed, and the winner receive an award for his plans. It was ultimately decided to invite Sir John J. Burnet, A.R.A., R.S.A., to act as assessor.

The conditions of the Auckland War Memorial competition have now been amended to meet the views of the R.I.B.A. Competitions Committee and the New Zealand Institute of Architects, and members of the Royal Institute are accordingly at liberty to take part in the competition. The date for sending in drawings has been extended to May 1922. A few copies of the conditions are available for reference in the R.I.B.A. Library. The ban on the competition has likewise been withdrawn by the Society of Architects.

The competition for the Greenock War Memorial is now nearing completion. The advisers to the Committee were Dr. Pittendreigh Macgillivray and Mr. G. Washington Browne, who considered the plans sent in. From the ninety-five competitors the number was reduced to twelve, and afterwards to five. At a meeting of the Committee last week the designs were opened, and the following is the short leet for the final decision:—John S. M'Kay, Dennistoun, Glasgow; Traylen Leton & Warwick, Peterborough; Wright & Wylie, Glasgow; James Lindsay, Glasgow; and A. Hamilton Scott, architect, and Benno Schotz, sculptor, Glasgow. The site which has been chosen for the memorial is in the Well Park.

Correspondence.

To the Editor of THE ARCHITECT.

Assistant Secretaryship of Society of Architects.

SIR,—May I be allowed through the medium of your columns to invite attention to the announcement in your advertisement pages relating to the above appointment, which may be of especial interest to some of your readers.—Yours, &c.

C. MCARTHUR BUTLER,
Secretary, Society of Architects.
28 Bedford Square, London, W.C. 1.
October 8, 1921.

An Irish Department of Art.

SIR,—In a note in your issue of 30th ult. you refer to some recent ecclesiastical work in Ireland, in which the Early Celtic architecture of Ireland has been made the basis of design. You remark that "in these days of provincial nationalism such work may make a strong appeal to many who see in it a revolt against the architectural imperialism of the greater styles." You also refer to the "curious and interesting forms of early Celtic art" in Ireland as having no counterpart in England.

May I venture to suggest that this conveys two errors? In the first place Celtic art in Ireland—*not* Irish Celtic art—was in no sense "provincial." It was a component part of the great world-wide development of the Romanesque style. It is true that this early development of the Romanesque in Ireland had a more direct connection, according to some authorities, with the early Lombardic influence on the Romanesque than in some other countries, and was undoubtedly influenced to a greater extent than the Romanesque elsewhere, by the Greek and Eastern motifs, yet unquestionably it was still a development of the same great school that spread all over Europe. It was, therefore, "national," and not "provincial."

It had, moreover, a "counterpart" as nearly as dissimilar renderings of the same motif can be said to have had counterparts in various countries, in England, in the Romanesque work prior to the Norman invasion—i.e., what is now regarded as true Saxon work, though on different lines. (See Petrie, Rivoira, Leader Scott, Baldwin Brown, &c.) See also Professor Henry Stokes on "The Celtic Church in Ireland," and Margaret Stokes, &c.

It is, of course, quite true that certain features have no counterpart in England. Whether the revival of such motifs for modern designs will live is, I agree, a question; but there is at least as much justification for attempting it as in the magnificent effort of the late J. F. Bentley in Westminster Cathedral, as well as in many other recent minor ecclesiastical works in England, more especially in a country that has not the great Gothic traditions of England to fall back upon, which is the real justification for utilising Celtic motifs in Ireland at this time of day. Ireland has a distinctive and clear Gothic tradition of its own, but it was on the whole very humble, not to be compared to the great Gothic traditions of England and France, therefore the Celtic Romanesque tradition looms up the larger.—Yours, &c.,

ARCHITECT.

The Prohibition of the Use of White Lead.

SIR,—In my former letter I stated that the writer of the letter signed "Audi Alteram Partem" was inaccurate and biassed. A careful perusal of his letter published in your issue of the 23rd ult. confirms me in that belief. The writer, no doubt for very good reasons, does not give his name, but, whoever he may be, evidently knows little or nothing about pigments and paints. If he did he could not have made such a mistake as that contained in the following paragraph:—

"What the property owner is concerned with is the hiding power and permanence of the respective pigments. Mr. Jennings says that Lithopone 'spreads' about one-third farther than lead. Does he hope to deceive us by bluff of this kind? It is not the 'spread' of paint that matters so much as its hiding power or capacity and, still more, its durability. In *both of these qualities Lithopone, as well as zinc oxide, is notoriously defective.*" The italics are mine. In those few words the writer of the letter referred to clearly shows that he does not know his subject. If he did, he would be well aware that lithopone has *far better hiding power than white lead.*

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In passing, it may be observed that, while questioning my accuracy, he makes the mistake of speaking of "hiding power or capacity," by which he means, I presume, "hiding power or opacity." But he can blame the printers, as he suggested I should.

Let us now ascertain who is trying to bluff, he or I?

I turn to the standard book on painters' materials, viz.: "A Manual of Painters' Colours, Oils, and Varnishes. For Students and Practical Men." By George H. Hurst, F.C.S. Fifth edition, revised by Noel Heaton, B.Sc., F.C.S., with a Chapter on Varnishes by M. B. Blacker, Ph.D. With numerous illustrations. (London: Charles Griffin & Co., Ltd., Exeter Street, Strand. 1913.)

On page 117 I find the following, which I copy word for word, but have put in italics words which can hardly fail to convince readers that lithopone has excellent body, and that I was not bluffing when I said that it had:—

"*Lithopone.*—This name is now generally used to denote a pigment originally introduced by J. B. Orr under the name of 'Charlton White,' and subsequently by other manufacturers with modified plant under various names. It consists essentially of zinc sulphide *in combination* with barium sulphate. When ammonium sulphide is added to alkaline solutions of zinc salts, or when sulphuretted hydrogen is passed through similar solutions, a white precipitate of the sulphide of zinc is obtained. This is a body composed of sulphur and zinc in the following proportions: Zinc, 67 per cent.; sulphur, 33 per cent.; its formula being ZnS. This precipitated zinc sulphide is a white of great opacity, and endeavours were made to utilise it as a pigment as early as 1852. It is prepared on a moderate scale and used by indiarubber manufacturers for colouring white rubber goods, it having been found that zinc oxide or zinc sulphide are the best pigments to use for this purpose. The zinc sulphide employed must be of good colour, free from any impurities, and should contain from 97 to 98 per cent. of dry zinc sulphide, the rest being water. Although pure zinc sulphide is in this respect eminently suitable for use as a pigment, in other respects it is unsatisfactory, the colour being rather poor for one thing. By combining it with barium sulphate its disadvantages are to a great extent overcome, and *a pigment is produced which possesses a very high degree of opacity, good covering power, and a pure white colour,* which can be manufactured at a price comparing very favourably with the white pigments previously described. This is the pigment known as lithopone."

The white pigments "previously described" in the book are white lead (various processes) and zinc oxide.

Again, on page 119 of the same book is the following:—

"*Properties of Lithopone.*—Lithopone has many excellent qualities as a pigment, in addition to its very low price. It is of a fine colour, whilst it is generally conceded that, properly prepared, *its opacity is superior to any other commercial white pigment.* It also has good covering power, but it does not work so well in the brush as white lead, having more the characteristics of zinc oxide. Like the latter it is non-poisonous and not liable to discoloration by impure air containing sulphur gases."

Does "Audi Alteram Partem" still think I was bluffing? May I make one more extract, this time from the book of an American paint technologist of great experience—viz. Dr. Maximilian Toch—who says in "The Chemistry and Technology of Paints," Crosby Lockwood & Co., London, 1916, page 52:—

"As an interior white, a first-coat white, or as a pigment in the lighter shades, for floor paints, lithopone cannot be excelled for its *body, durability,* hardness, fineness of grain, and ease of application."

It is well known among paint experts that under-coats which are now so largely used consist almost wholly of lithopone, because of its opacity. Indeed, so marked are its characteristics in this respect that one coat applied over black lines painted on a primed board almost obliterates them, two coats do so entirely.

As to the durability of lithopone there can be no question. It is not suitable for outside work, as I have stated, but for inside work it will last as long as white lead or any other white pigment. Architects specify it regularly, not, however, by its technical name, "lithopone," but as "Zinc White," "Charlton White," or flat-wall finish and washable water-paint, in the manufacture of which it is practically the only pigment used. The world's production of lithopone is probably more than 100,000 tons a year. In one Lancashire factory the output is 30,000 tons a year, the figures being given to me by Mr. J. B. Orr, the inventor.

Coming now to zinc oxide, if it is properly mixed it is quite durable on outside work. It is the sole pigment used in the manufacture of white enamels which are celebrated for their lasting qualities. As to its body, I suggest the following experiment. Paint out side by side three coats of white-lead paint and three coats of zinc oxide, spreading the first coat over the whole surface and leaving part of the board with two coats and a smaller part with three coats. Compare the lead with the zinc and it will be found that the lead is superior in the first coat, the two paints are nearly equal in the second, while in the third coat the zinc is slightly superior. Now many architects specify four coats, very rarely indeed one or two even on old work, never on new work, so that the deficiency of body of the zinc on a single coat is of no practical importance.

With regard to the remarks of Mr. G. W. Ansell, of Harrods, Ltd., it is impossible to say what unholy mixture he actually used, but it was certainly not zinc oxide, or the results would have been different. During the war one was compelled to use what one could get, and I should not be at all surprised if a largely adulterated lithopone was used for outside work, a purpose for which, even when pure, it is not suitable, as already explained.

Frankly, I do not understand the following "challenge." "The point of my letter," wrote "Audi Alteram Partem," "and I challenge Mr. Jennings to deny its force, is that since the International Labour Office was set up for the express purpose of improving the conditions of the worker, it is reasonable to expect a more statesmanlike proposal than that before us. The Labour Office has confounded sickness from other causes with sickness from white lead, and the public is justified in demanding, before it launches proposals which would wreck a British industry while fostering a foreign one, it should at least understand the subject with which it proposes to deal." Does this mean that the Labour Office is not justified in supposing that causes of lead-poisoning which have been certified as such by duly qualified medical men are not accurate and that the poisoning is due to some other cause? A great effort has been made to show that poisoning by turpentine is possible, but the evidence thus far put forward is far from convincing. If it is poisonous, painters are not aware of the fact. It seems to me that the efforts made to prove this will act upon the white-lead manufacturers as a boomerang, for if the turpentine poisons the painters who use it, it must have an injurious effect, although to a less degree, upon the occupiers of freshly painted rooms in which it is used. Referring to Mr. Noel Heaton's remarks as to "dry" versus "wet" rubbing down, every reader who is acquainted with the practice of house painters will be aware that when old painted work is rough or fairly so, pumice-stone and water are used to rub down the work in order to obtain a smooth surface before fresh coats of paint are applied. *This is done because the method is quicker and therefore cheaper than when sandpaper is used.* Where the surface is fairly smooth on old work, and very lightly between coats in the case of new work, dry sandpaper is employed. If much work of this kind is necessary in the latter case it simply means that the paint was not properly strained. I am well aware that distillates of mineral oil may be obtained that are lighter than ordinary mineral oil, but I should call them "spirits," not "oils." If everyone used a mineral spirit which evaporated at exactly the same rate as genuine American turpentine it would mean a great deal of extra trouble in constantly dampening sandpaper. It is, however, futile to argue this point, because no law making it compulsory to wet the sandpaper could be enforced unless an inspector was constantly present on every job.

The reprint of the Departmental Committee Report which bears my name and to which "Audi Alteram Partem" refers has now been withdrawn from distribution. It was published by the permission of the Controller of His Majesty's Stationery Office, and it bears the publisher's full name and address. My only reason for publishing it was that I considered it to afford very valuable information on the whole subject, and the original was out of print, except for the part relating to the painting of carriages. I am very glad to be able to state that I am officially informed that the document has now been reprinted by H.M. Stationery Office, and that copies may be had for 5*s.* 6*d.*

I trust that every architect and property owner will obtain a copy and carefully study its contents.—Yours, &c.,

ARTHUR SEYMOUR JENNINGS, F.I.B.D.
326 Bank Chambers, W.C. Editor of *The Decorator.*

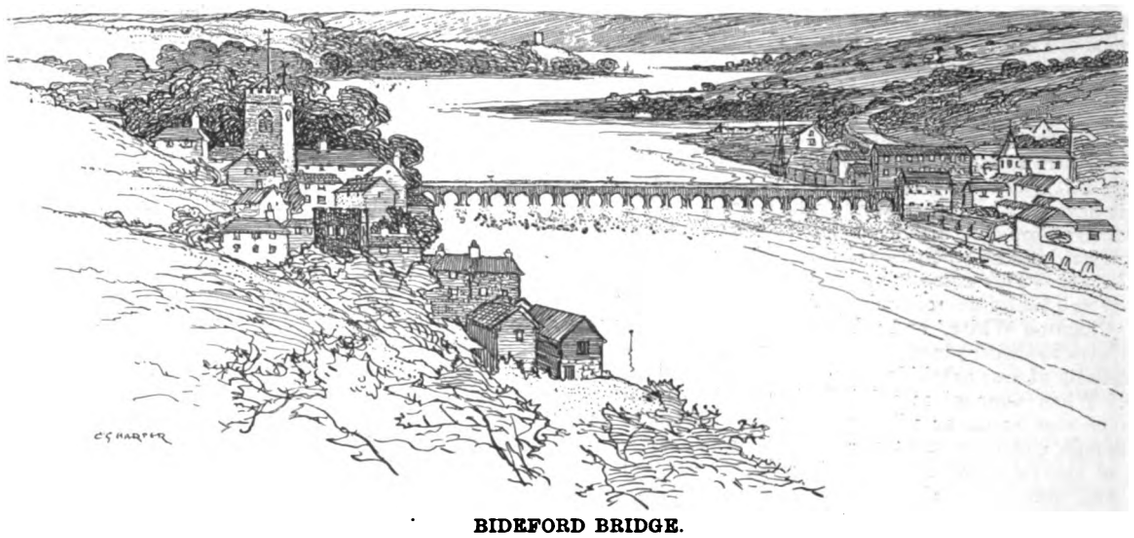
[Future correspondence on this subject must take the form of short letters.—ED.]

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Bridges.—III.

By Charles G. Harper.

(See Inset Illustrations.)



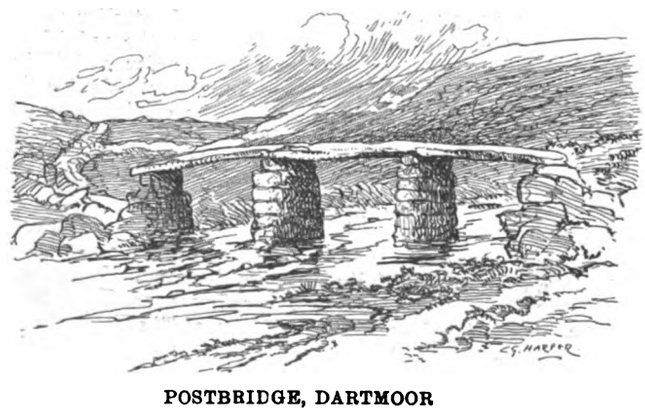
BIDEFORD BRIDGE.

(Previous Articles Sept. 9 and 23.)

INDEED, many of the West Country bridges which, widened from time to time, to meet the exigencies of growing and changing traffic, have thus lost their olden significance, were originally none other than pack-horse bridges. This is the history of the famous Bideford Bridge, crossing the Torridge: a bridge so old and so famed that in fact it is one of the most venerated of relics in Devon. It dates from 1350. But even so, it came too late for that old town to change its name, which means "By the Ford," originally "Renton-by-the-Ford." The bridge superseded the necessity for fording the river; an enterprise that must ever have been of some danger, for the channel is very wide, and the bridge itself requires twenty-four arches to span its 677 feet. Like many an object in the West, the bridge has its satanic and angelic legends. Richard Gourney, a priest, is supposed to have had a vision vouchsafed him as to the exact spot where it should be built. Awaking, he saw a rock in mid-stream where never had he noticed a rock before. He communicated this remarkable fact to the Bishop of Exeter, who encouraged the enterprise, and in the end it was completed, in spite of the machinations of the devil, who destroyed the foundations of the piers from time to time. (For "devil" read "quicksands.") Eventually the foundations were securely laid on woolsacks. This, however, is a legend based upon metaphor. Many West Country bridge-piers had woolsacks for foundations—in a sense. It is a way of saying that the old prosperous wood-trade yielded the funds for building.

In 1810 Bideford Bridge was found, like the similar Barnstaple Bridge, a few years earlier, too narrow, and it was widened, at a cost of £3,200. A further widening in 1865 cost £6,000. Of course, the bridge being so important a means of communication, it was liberally endowed, and a chapel stood on it, at the end opposite the town, where few failed to give something. The funds are now administered by a "Bridge Trust," a corporation with an income of £1,000 a year. It gives, or gave, excellent dinners. These are a fond and fading memory, since the Charity Commissioners frowned down feasting at the expense of the trust funds. Charles Kingsley wrote of Bideford Bridge (probably after one of these entertainments) that it was "an inspired bridge; a soul-saving bridge; an alms-giving bridge; an educational bridge; a sentient bridge; and last, but not least, a dinner-giving bridge: a veritable esquire, bearing arms of its own (a ship and a bridge proper, on a plain field), and owning lands and tenements in many parishes, with which the said miraculous bridge has, from time to time, founded charities, built schools, waged suits at law, and finally, given yearly dinners and kept for that purpose (luxurious and liquorish bridge that it is!) the best-stocked cellar of wine in all Devon.

A picturesque two-arched bridge at Malmsmead, lovely in every circumstance of moss-grown masonry, running water, bird-haunted trees, and simple white-faced cottages is one of the idyllic features of that part of Somerset which has come to be known as the "Lorna Doone Country." Unfortunately, the conditions do not form the idyll which eye and mind construct. Crowds of tourists, intent on "doing" the scenes of Blackmore's romance, have commercialised the sometime placid and unworldly folk; so that, crossing the bridge into Devon (for the stream here forms the boundary), evidences of a keen trade rivalry smite you, in the form of a notice-board displayed from the hedge of Malmsmead Farm.



POSTBRIDGE, DARTMOOR



OAKFORD BRIDGE

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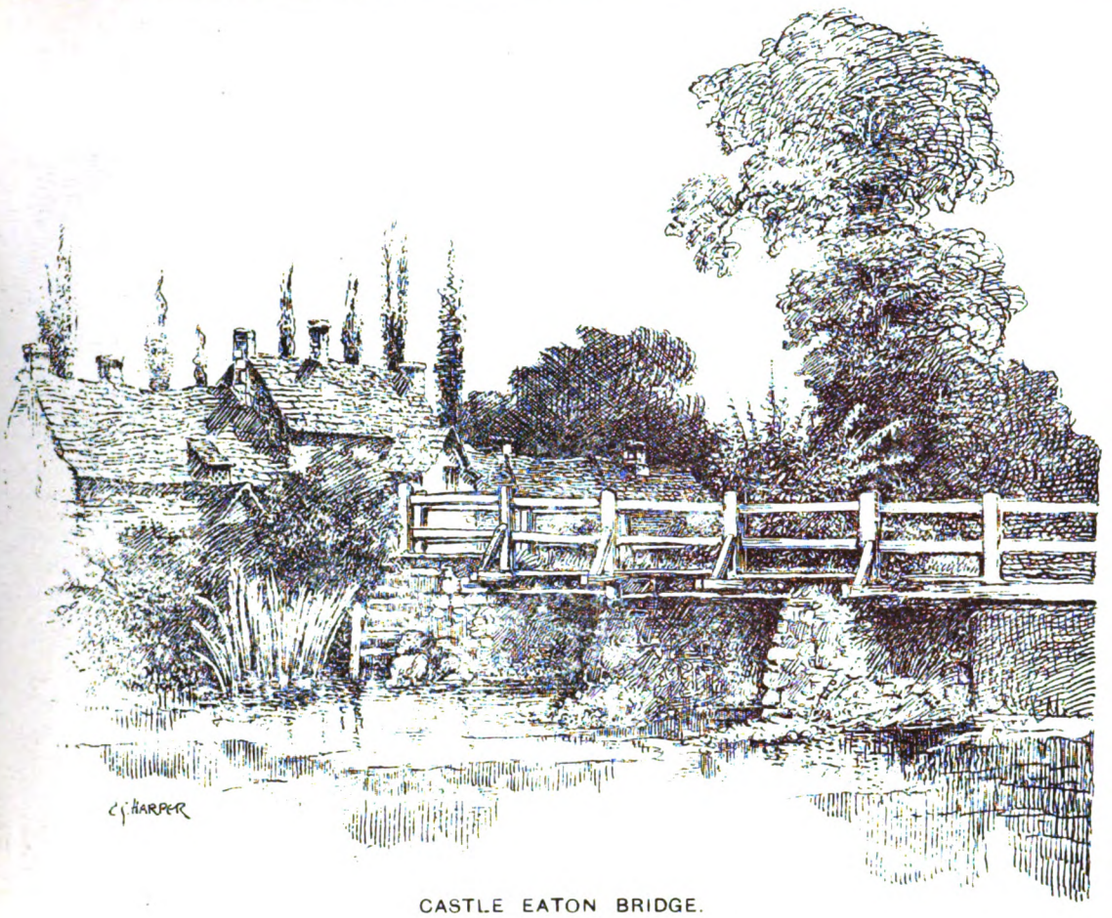


SONNING BRIDGE.



MALMSMEAD BRIDGE.

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CASTLE EATON BRIDGE.



CROWLAND BRIDGE.

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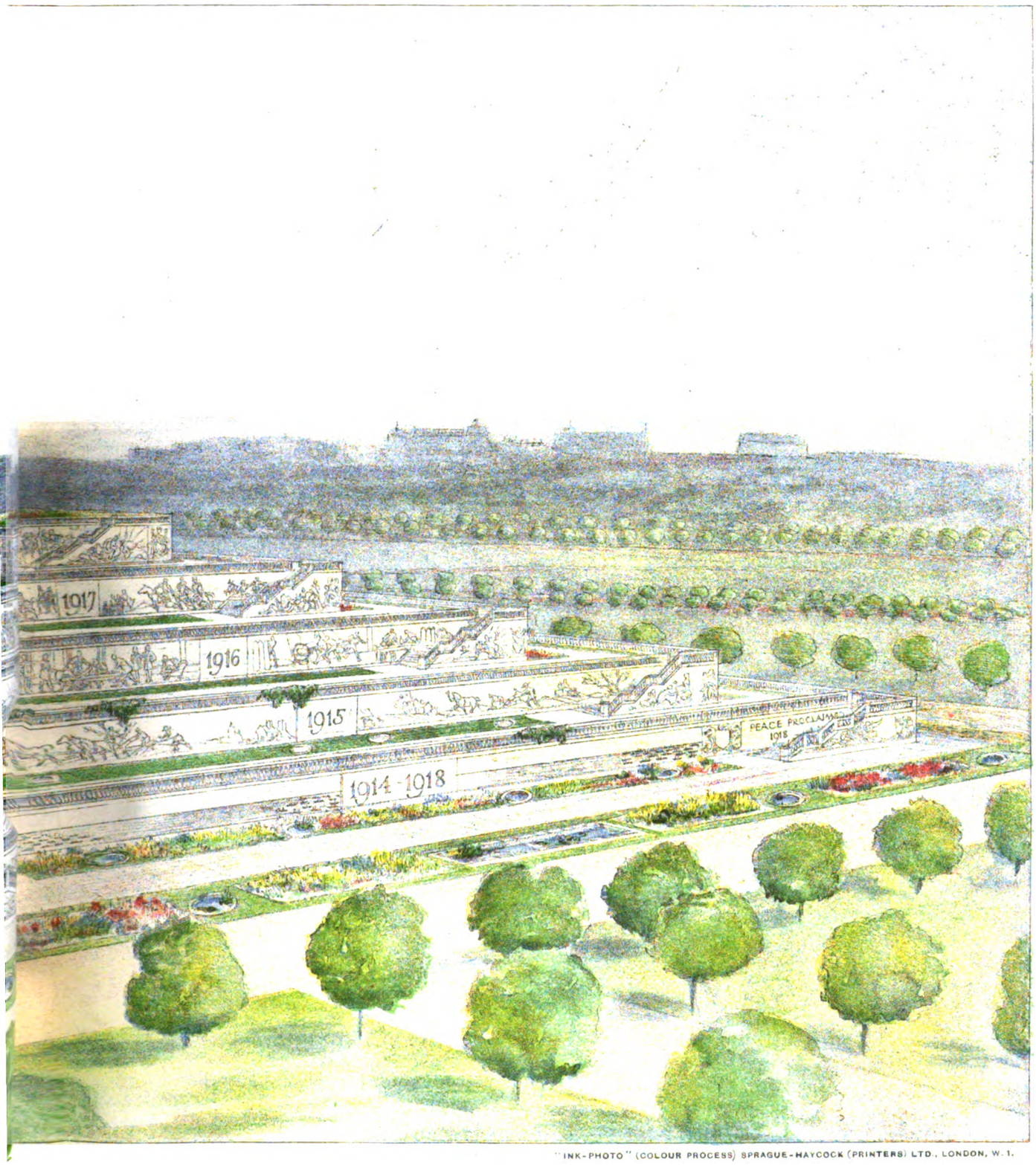
SUGGESTION FOR A N

BY THOMAS N

DRAWN BY KENNETH M. B.

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ONAL MEMORIAL.

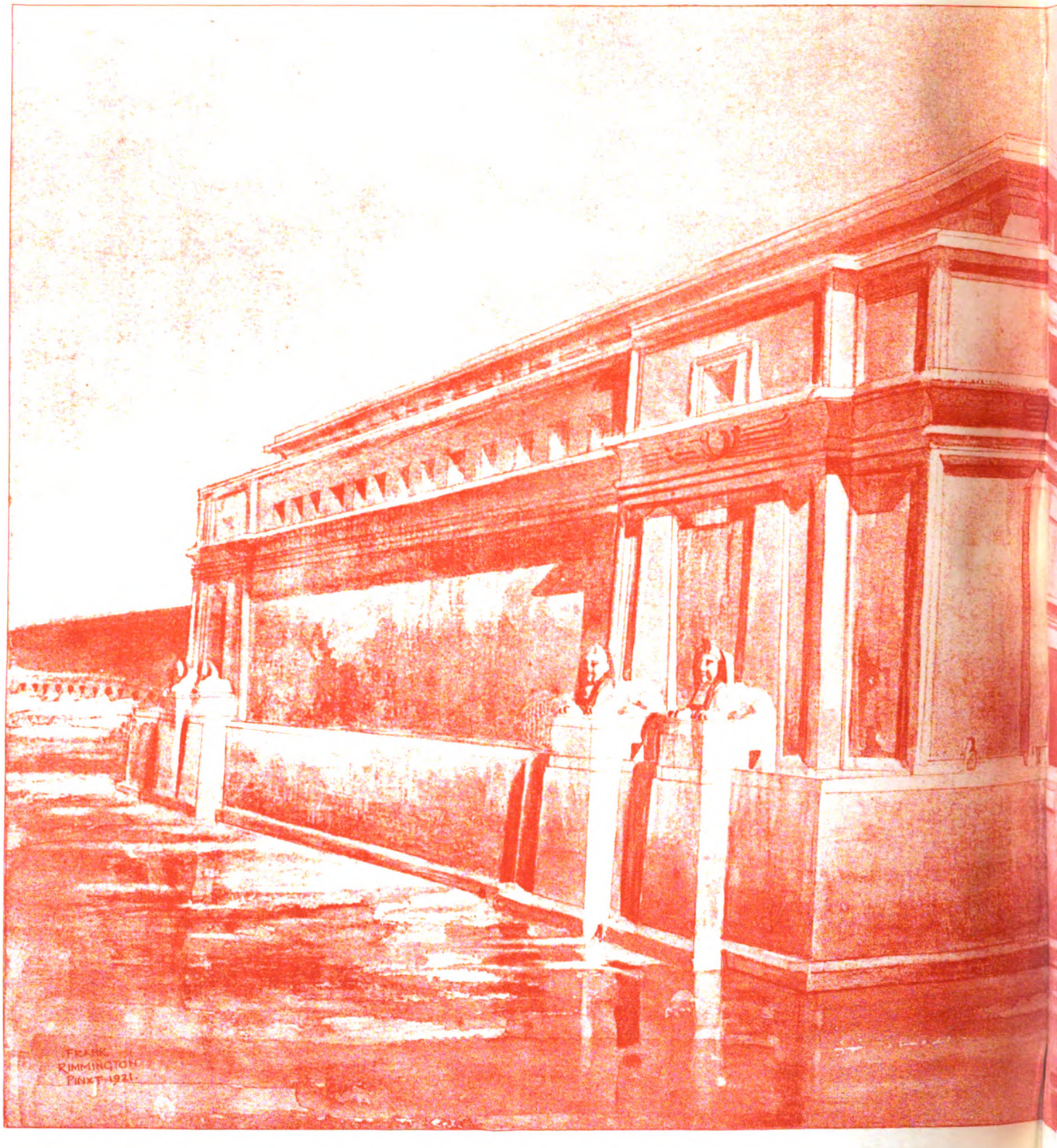
IN, Esq.

OSS, M.A., A.R.I.B.A.

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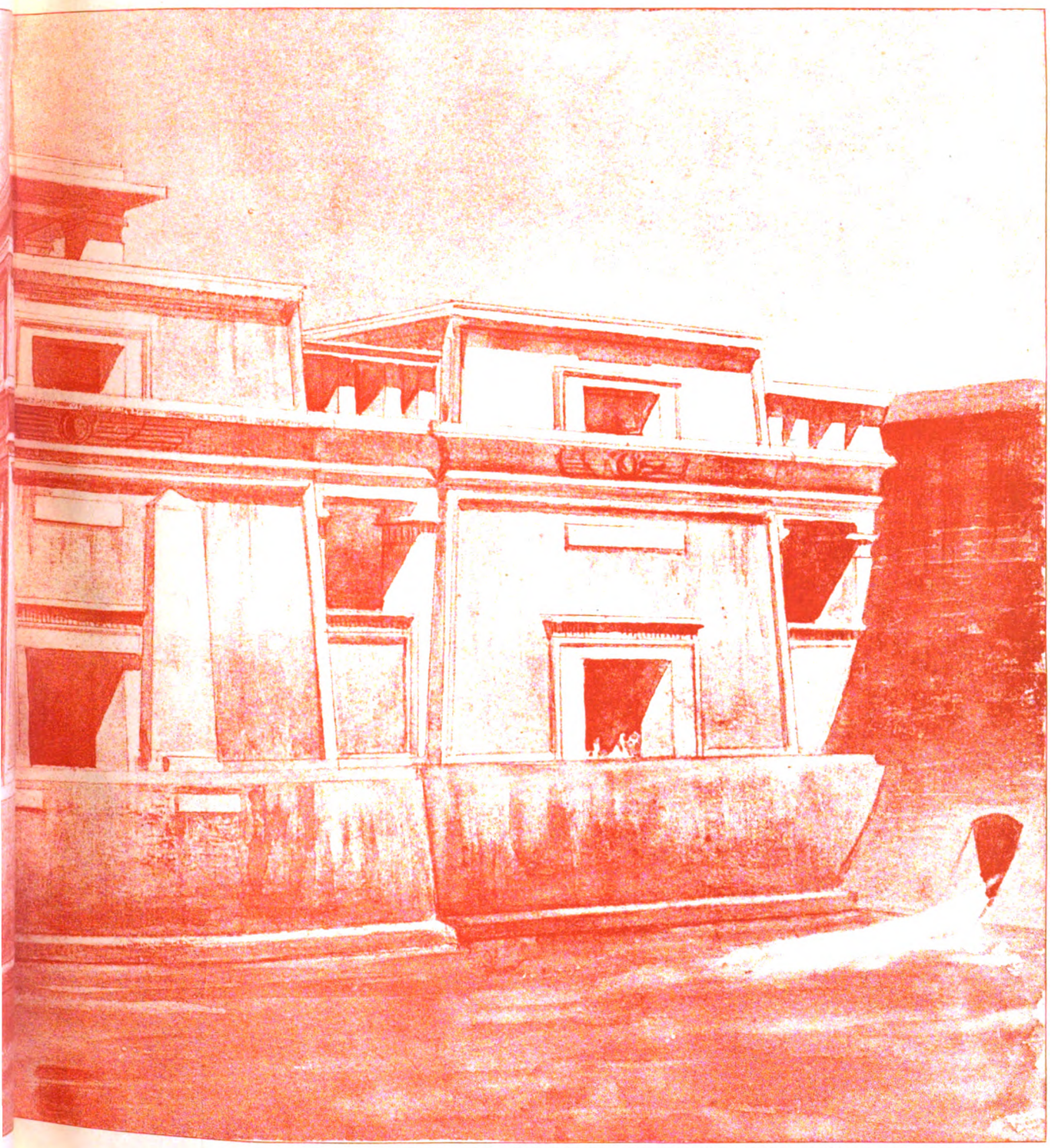
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PROPOSED HYDRO-ELECTRIC POWER HOU
DAVID A. BEVERIDGE, Lim
THEODORE STEVENS, M.Inst.

Royal Academy Exhibition, 1921

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SCREENLESS PHOTO PROCESS, SPRAGUE, HAYCOCK (PRINTERS) LTD, 69 & 70, DEAN STREET, LONDON, W.1.

SWAN, EGYPT: ALTERNATIVE DESIGN.

R.I.B.A., ARCHITECT

CONSULTING ENGINEER

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CROWLAND BRIDGE.

It says, vehemently, "No connection with Lorna Doone and Badgeworthy Farm."

Even more ironic in its present state than the waterless bridge at Moulton is the far-famed Triangular Bridge at Crowland, which appears to have no purpose, since there is no suspicion of any stream there. But Crowland was originally islanded by the confluence of three water-courses: the Catwater Drain, and the rivers Nene and Welland. It was approached by this unique structure at their meeting-place. No actual necessity would seem to have placed the bridge there; and thus alike for its position and design we may well seek that well-known mediæval love of symbolism which induced the design (among many other architectural curiosities) of the equally celebrated Late Norman so-called "Triangular Arch" at St. Cross church, near Winchester, or the "Holy Trinity Rabbits" in stained-glass at Long Melford Church, Suffolk, in which are displayed three rabbits' heads with but three ears instead of six: each rabbit yet having two ears. Thus we can readily perceive with what avidity the fourteenth-century ingenious religious architects of Crowland seized at once upon the problem of bridging three streams with one bridge, and that of typifying by it the Holy Trinity; no doubt also with some intent to overawe the pilgrims who were obliged to pass over on their way to the sacred relics of St. Guthlac in the Abbey. It is possible that an earlier bridge which stood here, and dating about A.D. 870, may have had the like mystical design; but of that we know nothing. The three pointed arches of the existing bridge have each three stone ribs, springing from abutments at the angles of an equilateral triangle. It is not only impossible for wheeled traffic, being approached by steps, but it is also amazingly steep for pedestrians: far more so than any illustration conveys. The gigantic stone figure at one angle, looking mediævally appropriate, does not, in fact, really belong to the bridge at all. The Crowland folk call it "Oliver Cromwell, with a penny loaf in his hand"; or alternatively, by those just a little less ignorant, who perceive it to be a kingly figure, "King Etheloald," who is known to have been a fugitive with Guthlac. It is true, the figure is greatly weatherworn, but it is yet sufficiently obvious that it is a representation of God the King and Father, in majesty, holding in his hand an orb. The shallow, flat nature of the stone proclaim it to have once formed the supreme effigy in the highest niche of the Abbey's west front.

On the upper Thames, the oldest bridge is yet styled, paradoxically enough, "New Bridge." It has an ancient fellow, the Pont Neuf, at Paris. It was built about 1260, and is of seven acutely-pointed arches. It carries the Abingdon and Witney road. Radcot Bridge, near Faringdon, is little less ancient, having been built about 1300. Some of the picturesque old bridges up stream have been very severely dealt with; notably that of Castle Eaton, below Cricklade. This, as the illustration shows, was a rude but sturdy affair of stone and rubble piers that would seem never to have had arches; timbering being laid across. There was no question possible about this ancient bridge being easily sufficient to

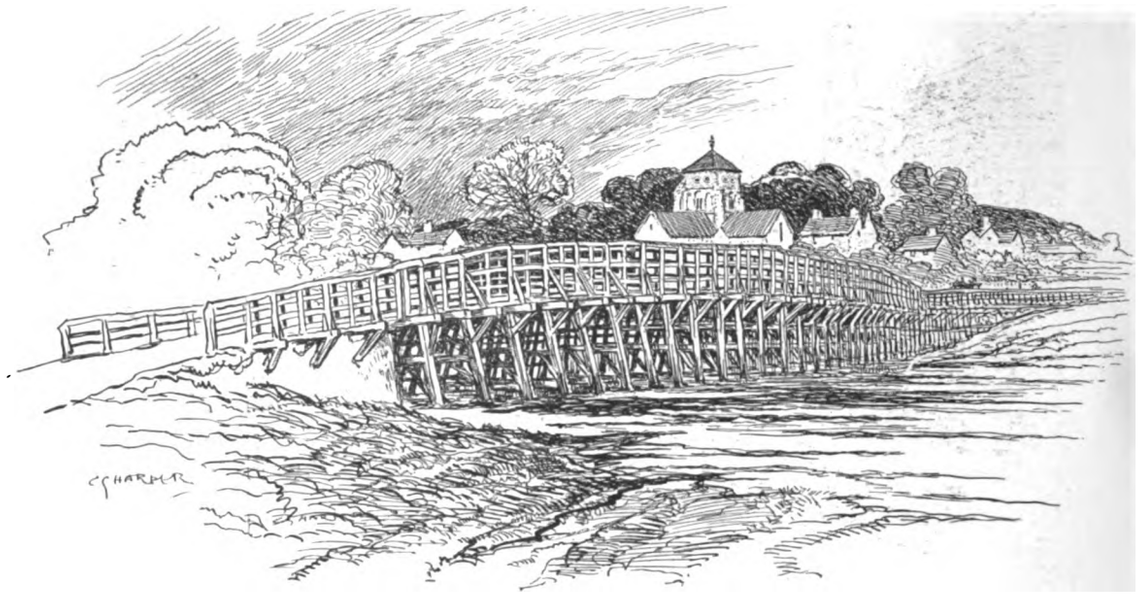


EASHING BRIDGE.



CRAMOND BRIDGE.

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OLD SHOREHAM BRIDGE.

carry the small traffic of that region; but it was wantonly demolished some twenty-five years ago, and its place taken by a more than usually offensive low-pitched, iron-girder bridge; one so little likely to be permanent that it is to be observed that rusty scales and scabs are breaking out beneath the glaring red paint. A larger bridge than the old one of Castle Eaton, but otherwise greatly resembling it in its archless piers and timber superstructure, is that of Oakford, across the river Exe, three and a-half miles from Bampton. Much nearer to London is Eashing Bridge, across the river Wey, near Godalming. Strictly speaking, it is of no architectural character, but it is a venerable survival from the thirteenth century and exceedingly picturesque, both in its sturdy antiquity, and its surroundings. Here again, a proposal was made some years ago, to pull it down and build an iron lattice bridge. The decision was actually made, but public opinion caused it to be rescinded. The credit for this belongs to the National Trust for Preserving Scenes of Natural Beauty and Historic Interest.

Sonning Bridge, across the Thames below Reading, was also marked for destruction some ten years ago. It is an eighteenth-century red brick affair, not beautiful in form, but mellowed and lichened to a delightful colour. At any rate, it was felt that it is better than the then proposed iron lattice bridge possibly could be.

Sentiment now sways the world far more than it did at any earlier epoch, and many a building long past its prime is for that reason alone suffered to remain. Else the "auld Brig" of Ayr would long since have gone the way in which the obsolete formerly went. It is the oldest of the five bridges that there span the river, and it dates from the thirteenth century, with many a patch and cobbled insertion to it. A steep and narrow bridge of five arches, it is now used only for pedestrian purposes, after having been some years ago condemned to destruction. That then impending doom aroused all the perfervid enthusiasm of the Scots, because of the association of the bridge with Burns; and, when almost on the point of demolition, it was spared and placed in a sound condition for the purposes to which it is now restricted. But sentiment did not prevent the rebuilding in 1766 a more convenient form of the bridge across the Tweed at Coldstream, by Smeaton.

Sentiment also will surely spare the early seventeenth-century bridge at Cramond, some five miles north of Edinburgh, on the road to Queensferry; although it will be sentiment at second hand, so to speak. For this bridge across the river Almond, built in 1619 is the successor of that earlier one at which James the Fifth of Scotland met with a remarkable adventure, about the year 1525. Like the famous Haroun-al-Raschid, it was his fancy to wander in disguise; and on one of these unconventional occasions he chanced to come to this spot and there he made love rather too freely to a country girl. This was resented by the people of Cramond, and the sovereign in disguise received some rough treatment at their hands and would have fared worse had it not been for the miller, Jock Howieson, who rescued him. For this help the King conferred the adjacent lands of Bainton upon the miller and his heirs, on the suit and service of he and his descendants furnishing the King and his successors with a basin and ewer to wash their hands whenever they should repair to Holyrood, or here cross the Almond.

Of timber bridges there remain but few. The largest and the most remarkable of these is the lengthy structure that crosses the broad estuary of the Teign, between Teignmouth and Shaldon, in South Devon. It is not an ancient bridge, having indeed been built 1825-27. It is a toll-bridge, the property of a company, and is 1,671 feet in length, with many spans. The timber bridge across the river Adur at Old Shoreham, near Brighton, is also a toll-bridge and appears to belong to the London and Brighton Railway Company. It carries the important Brighton and Worthing road; and is, for such a service, a curiously out-of-date though picturesque survival. The alternative, and perhaps even more greatly used, road is that a little lower down, crossing the river by the "Norfolk Bridge." This was built by a former Duke of Norfolk, and is a suspension bridge. It was purchased by the West Sussex County Council from the late Duke, in 1903, for £8,500. The tolls exacted are still continued. This bridge is more or less of a dangerous structure, and it is contemplated to rebuild it. The receipts from tolls in 1904, the year following the purchase, were £1,013 18*s.* 11*d.* Ten years later they were £2,102 12*s.* 1*d.*

(To be continued.)

Cardiff School of Architecture.

The opening of the first Welsh Atelier took place last week at the Technical College, Cathays Park, when twelve students assembled to receive the first subject—A Design for a Memorial Lecture Theatre.

This Atelier, the first of its kind in Wales, has been provided by the Education authorities at the request of the South Wales Institute of Architects to met the demands of the architectural assistants in the district for training in the higher stages of design.

Mr. Percy Thomas, O.B.E., A.R.I.B.A., the visitor appointed by the South Wales Institute of Architects, attended and expressed his appreciation of the number who had joined up and Professor Purchon outlined the general scheme upon which the Atelier would be run.

The Atelier meets every Wednesday from 6 to 8 o'clock at the Technical College.

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The Late F. G. Briggs, F.R.I.B.A.

(Contributed.)

The death of Mr. Frank Gately Briggs came with startling suddenness, and, to those who had seen him a few days before, as a great shock. He was with his wife on a short visit to Birkdale enjoying his favourite pastime of golf, of which game he was no mean exponent. On the evening of his death he complained of being tired and not feeling well, and a few minutes after retiring he passed away.

Mr. Briggs was articled to Mr. John Clarke, of Liverpool, and on completing his articles remained with him as his chief assistant until he joined Mr. Wolstenholme, of Blackburn, in partnership. Although Mr. Briggs was a native of Blackburn, he was essentially a Liverpool man, and an office under the style of "Briggs & Wolstenholme" was opened in Liverpool under the charge of Mr. Briggs.

About twenty-two years ago The Mersey Dock and Harbour Board invited designs for their new offices at Liverpool, and Messrs Briggs & Wolstenholme collaborated with Mr. Arnold Thornley and Mr. F. B. Hobbs, and they were successful in being placed first in the competition, and after some modifications their design was carried out. This was really the beginning of Mr. Briggs's very successful career. The result of this building was the firm of Messrs Briggs, Wolstenholme & Thornley, and after Mr. Wolstenholme's retirement the firm became Messrs. Briggs & Thornley.

Messrs. Briggs and Thornley have been particularly fortunate in competitions, and amongst the many designs placed first were those of:—

Gamble Institute, St. Helens; Wigan Mining College; Libraries of St. Helens, Stafford, and Liverpool; Dock Board Offices, Liverpool; Blue Coat School, Liverpool; Wallasey Town Hall; Stepney Town Hall, and King Edward VII's School, Lytham.

Mr. Briggs was also associated in the preparation of the designs for:—

The Engineering and Chemical Laboratories of Liverpool University; Bank of West Africa; Elder, Dempster's Offices, Liverpool; Palatine Bank, Manchester; Public Halls, Blackburn, &c., &c.

He was frequently called upon to act as assessor in competitions, and he occupied a high position as the consulting architect to various public bodies.

Amongst his professional brethren he was held in high esteem, and his clearness of vision and sound judgment caused him to be frequently consulted on many difficult architectural problems.

But it was not only as an architect that the writer knew the late Mr. Briggs, and indeed, to know him you had to meet him on a holiday or on the golf links. It was on occasions of this kind that one had the opportunity of becoming closely acquainted with him. He was as keen as a sportsman as he was great as an architect, and if one were asked to sum up briefly Mr. Briggs's character, it would be, "scrupulous fairness in business as well as in pleasure."

To know Frank Briggs intimately was to love him, and that is the highest tribute which can be paid to any man.

L.C.C. Housing Schemes.

Replying to a question by the Rev. Stewart Headlam on the present position of the London County Council's various housing schemes, Col. Fremantle, M.P., at this week's meeting of the Council, said that as regards Becontree, it was at first intended to erect over 20,000 houses on the estate, but the layout plan was prepared on the assumption that the number of houses would be reduced to about 18,000. By the desire of the Minister of Health work had so far been restricted to the Ilford section, on which it was proposed to erect 2,875 houses, but the Minister had now stated that he would be prepared to authorise the Council to proceed with the erection of not more than 1,000 additional houses, subject to the settlement of details, including conclusion of a satisfactory agreement as regards sewage disposal by the local sanitary authority.

At Bellingham the Council intended to erect about 2,000 houses, and the approved lay-out plan provided for the erection of 2,056. The work was well in hand, and no restriction had been imposed by the Government.

With regard to Roehampton, on which it was originally proposed to erect about 1,200 houses, the Council had limited the existing contracts to 624 houses, but no decision had yet been arrived at as to the resumption of operations on the second section.

It was impossible to state the amount of surplus land which would be left after the restricted schemes had been carried through, until the question of policy had been definitely decided in consultation with the Ministry of Health.

New County Hall.

The decision of the Establishment Committee to have the seats in the new Council Chamber covered with red morocco leather provoked a good deal of ironical criticism. The Chairman of the Committee, Mr. Greenwood, suggested it was a colour which would "improve with age," a suggestion which was boisterously cheered by the Socialist element on the Council. One Labour member invited the Council to consider whether it might not be appropriate, not only to have red-covered seats, but to drape the Red Flag behind the Chair. Another member asked facetiously whether the Council was trying to emulate the trappings of the House of Lords. A resolution expressing regret at the Committee's decision was negatived amid laughter.

"The Architect" Fifty Years Ago.

October 14, 1871.

Ventilating the Metropolitan Railway.

Some short time ago the Metropolitan Board of Works gave its sanction to the plan proposed by the Metropolitan Railway Company for ventilating their tunnel line between Gower Street and King's Cross, and the works are now in progress at different points in the Euston Road, under which the railway passes. There will be five openings along the Euston Road from Gower Street to the Company's King's Cross Station, which will not only have the effect of amply ventilating the underground line, but will also to a considerable extent admit of daylight along the route, the openings being made at short distances from each other, and being about ten yards in length and between three and four yards in width. These openings will also form a source of protection to the public in the crowded thoroughfare of the Euston Road, in addition to the purpose for which they are more immediately being constructed, inasmuch as when they are completed and fenced round they are intended as a refuge for foot-passengers crossing the road.

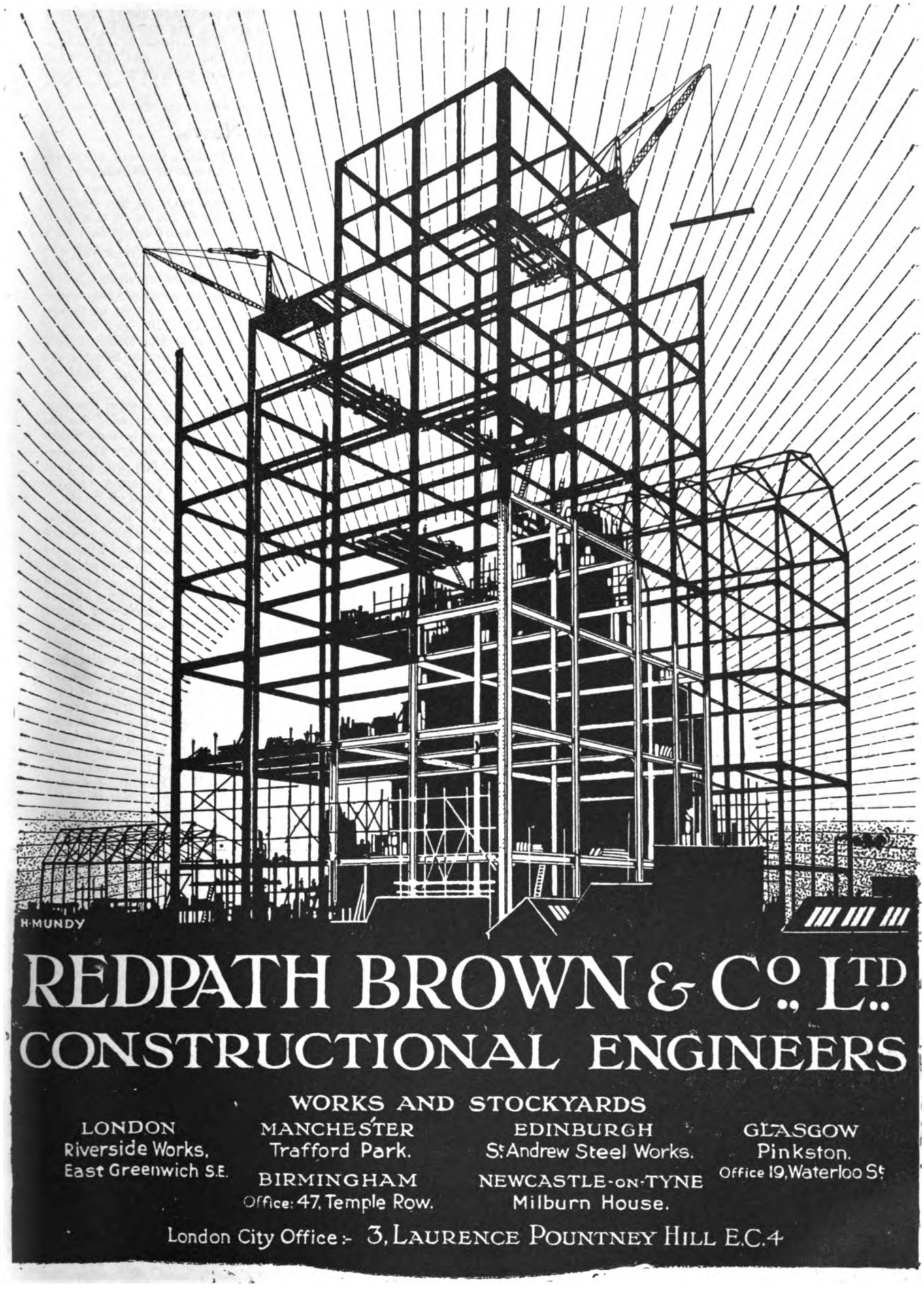
Mr. Paul Waterhouse, M.A., President of the Royal Institute of British Architects, has accepted an invitation to visit the Birmingham Architectural Association on January 13.

The Dean of Chester announces that an appeal for the Chester Cathedral Restoration Fund is being launched this month. The Dean states that the appeal will be for £22,000, which will be required in addition to a legacy of £6,000, which is now being spent on the Refectory.

The site of the burnt-out Waterloo Hydro at Aberystwyth is likely to be taken over by a Birmingham syndicate for the erection of a first-class hotel. The Town Council originally fixed the amount to be expended on the new building at £60,000, but at a recent meeting it was agreed to vary the sum to £40,000, and this amount has provisionally been accepted by the syndicate.

Bournemouth Town Council have decided by 31 votes to 9 that among the various proposals for the development of the town and the use of unemployed labour first place will be given to their pavilion scheme. Pavilion schemes have been before the Council for over twenty years, and the sanction of the Local Government Board was obtained for a building to cost £60,000 in 1914, but the outbreak of the war prevented the commencement of the scheme. The Council will at a future meeting consider fresh estimates and plans.

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General.

The proposed "Grand" Picture House, Snig Hill, Sheffield, is to include a large cinema to hold 2,500 persons, a restaurant, tea-rooms, and ballroom. The architect is Mr. T. W. Newbold, 70 Surrey Street, Sheffield.

An option has been secured for about 250 acres of land at Rochford, four miles from Southend-on-Sea, for the purpose of constructing a racecourse. It is estimated that the cost of construction will be £150,000.

It has been decided at a parochial meeting at Barnard Castle to erect as a war memorial an oak screen between the baptistery and the nave of the parish church. Mr. Richard Wylie, A.R.I.B.A., of Newcastle, has been chosen as architect.

The Corporation of Hereford have been informed that the Elizabethan timber-framed building known as The Old House, and used for many years as the Hereford branch of Lloyds Bank, was to be handed over by the company to the city as a free gift. The Old House is believed to be the work of John Abel and to date from the reign of James I.

Plans have been approved, by the Bolton-on-Dearne U.D.C., for the erection of the New Hippodrome at Goldthorpe, near Rotherham. The architect for this work is Mr. A. Whitaker, of Sheffield. The new building is to be erected upon the site of the old Hippodrome, which was destroyed by fire a few years ago.

A war memorial was unveiled on Sunday last at the Church of The Ascension, Lavender Hill, S.W. A Calvary with attending figures designed in an original manner as three separate panels carved in relief and let into the existing plain brick wall. Portland stone was used for the sculpture. It was the work of Messrs. E. J. & A. T. Bradford, of Borough Road, London, S.E.

Girvan Town Council have unanimously agreed to apply for a Provisional Order giving them power to acquire water from Penquhapple Burn and about 120 acres of ground for the construction of an additional reservoir, and the necessary way-leave. The proposed new reservoir will have a capacity of 210 million gallons. The original estimated cost of the scheme was £30,000, but it is expected, with the gradual reduction in labour and material costs, that the expenditure will not be more than £20,000.

The Air Council have signified their warm appreciation of the decision of the Council of the Royal Institute of British Architects to award the Grissell Prize this year for the best design of an airship mooring mast. The prize consists of a gold medal and the sum of £50. The competition is open to architects who are British subjects and have not been in professional practice for more than ten years. As a further indication of their interest in the competition the Air Council have asked that facilities shall be given them to see the more promising designs submitted by competitors, and express their readiness to nominate an expert to give his assistance to the Grissell Prize Committee on any points in which actual airship experience would be of value.

The newly appointed Secretary of the Concrete Institute is Captain M. G. Kiddy, who has been for the past two and a-half years Assistant Secretary of the Society of Architects. Joining the Forces in August 1914, Captain Kiddy went to France with the London Rifle Brigade in November of that year, was wounded, and, on returing home, took up a Commission, subsequently serving in Gallipoli, Egypt, and Palestine, and with a Naval Section of the Royal Air Force. He was gazetted Captain R.F.C. in 1917, and still holds that rank on the reserve list of the R.A.F. After the war, Captain Kiddy joined the editorial staff of the "Daily News." The strain proved too great, and he resigned, and subsequently was appointed Assistant Secretary of the Society of Architects, which appointment he has just vacated in favour of his new one.

The Industrial Relations Department of the Ministry of Labour issued, as a Blue Book, on the 8th inst., a report on the work of conciliation and arbitration during the year 1920. In a preliminary note Mr. H. J. Wilson says that during the year 920 labour disputes were settled under the auspices of the Department, a large proportion of them consisting of conciliatory agreements. The general movement for the shorter working week had been a distinguishing feature of the preceding year, and as a result over half a million workpeople obtained reduced hours of working during 1920. The outstanding feature, however, was the wage problem, the consolidation of basic rates, and war advances. The report says: "In the early part of the year employers in a number of industries were not unwilling to concede substantial advances of wages, since it was possible for them at that time to dispose of their goods at increased prices. In the building trades, where there is complete freedom from foreign competition, and the demand for new buildings and for repairs was heavy, employers and employed appeared to be in a position readily to pass on any charge to the consumer. Some very high demands for increase of wages were in consequence put forward by the men, and there were signs that the cost of building was so high as to impede extended building work."

Housing News.

The Bolton-on-Dearne Urban District Council are erecting seventy houses. Messrs. Garside & Pennington, of Pontefract, are the architects.

Substantial reductions have been made in the amended tenders for the erection of 106 Council houses on the Alexandra Road site at Ashington. In mentioning this at a meeting of the Council last week, the Housing Committee stated that there were 900 applicants for houses, and that overcrowding in the district was "simply appalling."

The Worthing Town Council have accepted the tender of Mr. C. Prior, of Eastbourne, for the erection of thirty-two houses in South Farm Road at £571 10s. per house as compared with £902 paid in June 1920 and £690 in July 1920 for the erection of houses of 20 ft. more floor space. The tender includes paths, drainage, fencing, lighting, water supply, &c.

The Beverley Town Council, at a recent special meeting, considered the termination of Mr. Love's contract for the housing scheme and to confirm various resolutions which had been passed by the Council in Committee. The effect of these resolutions is that the sum of £3,000 will be paid to the contractor in full settlement of all claims and the scheme will be carried on in future by the Office of Works.

The Ministry of Health, which has vetoed the Spalding Urban Council's housing scheme in part, has now reversed its decision and allowed the matter to proceed. The part of the scheme vetoed was the construction of ten pairs of houses which had already been commenced. After an emphatic protest by the Council, the building is now allowed to proceed. The rentals of the new houses, which cost £1,950 per pair, have been fixed at 10s. 6d. per week, exclusive of rates.

At last week's meeting of the Glasgow Corporation Mr. Dollan put a question regarding the cost of production at the Dalry brickworks, acquired some time ago by the Corporation. It was stated in the minute that during August the output was normal, and that the over-all cost for that month was 72s. 2d. per 1,000 bricks. He desired to know what the Corporation paid per 1,000 bricks before the municipalisation of the works, and what they were now paying to private manufacturers. Mr. Morton, convener of the Committee on Housing, stated, in reply, that the price they paid formerly was 100s. 9d. per 1,000 bricks, and that the Board of Health price was 90s.

Trade Notes.

The Ideal Homes Exhibition at Glasgow will come to an end to-morrow, the 15th inst., after a very successful run. One of the most interesting of the exhibits, without any doubt, has been the home-grown timber house built by James Jones & Sons, Ltd., timber merchants, Larbert. This structure, which was described in our issue of September 30, is entirely composed of larch, Scots fir, and spruce. Messrs. Jones & Sons are prepared to supply the wood in sections ready for building purposes. The house has been acquired by the Glasgow Corporation. It should be carefully examined by every visitor to the Exhibition as a possible contribution towards solving the housing problem.

Messrs. Ash & Lacy, Ltd., of Meriden Street, Birmingham, in writing to us on the 7th inst. in support of their contention that galvanised steel and zinc rain-water goods, besides being strong and durable and practically immune from breakage in transit, are cheaper than similar goods made in cast iron, state as follows: "To-day's price for 4½-in. cast-iron gutter is about 7s. per length, whereas we are able to supply galvanised steel and zinc gutters at 3s. and 2s. 6d. a length respectively." Architects and builders, therefore, will be well advised if they obtain quotations from Messrs. Ash & Lacy, Ltd., before making purchases elsewhere.

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"London of the Future."*

WE have not had time to thoroughly examine the book issued by the London Society under the editorship of Sir Aston Webb, but it affords evidence of the vitality and earnestness which have distinguished the efforts of those who have given their time and energy to the movement which aims at the improvement of the greatest city in the world. We are surprised that the book has not been produced at a much lower price, as it contains nothing which should render its production difficult and expensive like that of some technical books. This may, but we hope will not, prove detrimental to its chances of wide and general circulation, which we trust will be secured.

Following on a clear and well-written introductory article dealing with the London Society by Sir Aston Webb, seventeen chapters follow, viz.: The Opportunities of London, by T. Raffles Davison; Roads, Streets, and Traffic of London, by Col. R. C. Hibbard; London Railway Reconstruction, by H. J. Leaning; Commercial Aviation and London, by the Lord Montagu of Beaulieu; The Bridges of London, by Sir Reginald Blomfield; London and the Channel Tunnel, by Sir Arthur Fell; The Surrey Side, by Paul Waterhouse; Central London, by Professor Adshead; The Port of London, by the Viscount Devonport; the East End, by the Rev. H. L. Paget; Some Thoughts on the Development of London, by Raymond Unwin; the Housing of London, by W. R. Davidge; The Government of London, by W. E. Riley; The Parks and Open Spaces of London, by David Barclay Niven; London as the Heart of the Empire, by the Earl of Meath; The Smoke Plague of London, by the late Sir William Richmond, K.C.B., R.A.; and The Spirit of London, by the Marquess of Crewe, K.G., P.C., F.S.A.

The wide range of subjects thus covered are of practical character with specific reference to London, and others like "Commercial Aviation" and "The Smoke Plague" of a more general character. To these more general subjects two additions might, we think, have been made, since they are of the first æsthetic importance—not only to London but to every modern town. The first of these is the insistence on the severe restriction (if not the entire abolition) of the displayed advertisement, especially in the form of lettering across the fronts of buildings; the second, the equally important subject of the regulation of shop frontages. These two matters—unlike the improvements suggested by many—would cost the community nothing, would inflict no hardship on the commercial classes, and would, at a stroke, do away with the worst and most glaring defects of every town in the land. We should, by legislation, empower every authority to fix a definite proportion between the voids and solids in shop-fronts, regulate their heights, and to insist on a height, position, and size for shop fascias and the lettering upon them. Until this is done no effort on the part of individual designers will give us satisfactory street effects in shopping quarters, while it is open to the owner of any building to utterly spoil the design of the finest fascade in a city by the lettering or signs fixed across its architectural features.

But it is one of the curious features of the times that, while we find those who advocate interference with individual liberty on matters which are vitally important to certain interests, there is comparatively little interest in matters which might be dealt with without interference with the rights of others. Some passages in Mr. Leaning's admirably thought-out and carefully argued chapter on Railway Reconstruction bear this out. Mr. Leaning says "the unity of ownership of all means of communication seems desirable because it would enable the Government to develop and improve those means of transit most required, and to abandon those which are obsolete and unremunerative. This is absolutely necessary for reasons of economy and efficiency. Unity of management is not so indispensable. After a careful re-grouping of our systems it would be quite feasible for the present companies to operate the lines subject to the central control of a permanent State Department. This is politics, but it is also political economy, for the alternative course of restoring the lines to their former owners would involve many years of arbitration and many millions in compensation."

This remarkable passage contains absolute misstatements as to facts, and shows a disregard of the most elementary considerations of justice and equity. Who are the "former" owners of the railways? We have never heard that the great companies had sold their lines. They were operated by the Government during the War on the understanding that they should be handed back to the companies at its conclusion with compensation. Whether that compensation is many million pounds or a matter of farthings is immaterial. We may be told that since these words were written events have changed and they no longer apply; but that is immaterial to the argument. We object to the disposition which prompts these and similar contentions. Again, is our belief in Government management such that we really think it is the best agency for developing public services? Do we not know that even since the Government released the railways an improvement has been manifest? Do we really believe competition should be eliminated when we know it has been productive of quick and good services throughout the country? Difficult times may bring about much co-operation and eliminate some competition, but after all the management which has laid down our railways has complied with the Board of Trade's conditions as to their regulation, and which gave us

* "London of the Future." By the London Society, under the editorship of Sir Aston Webb, K.C.V.O., C.B., P.R.A. London: T. Fisher Unwin, Ltd. 42s. net.

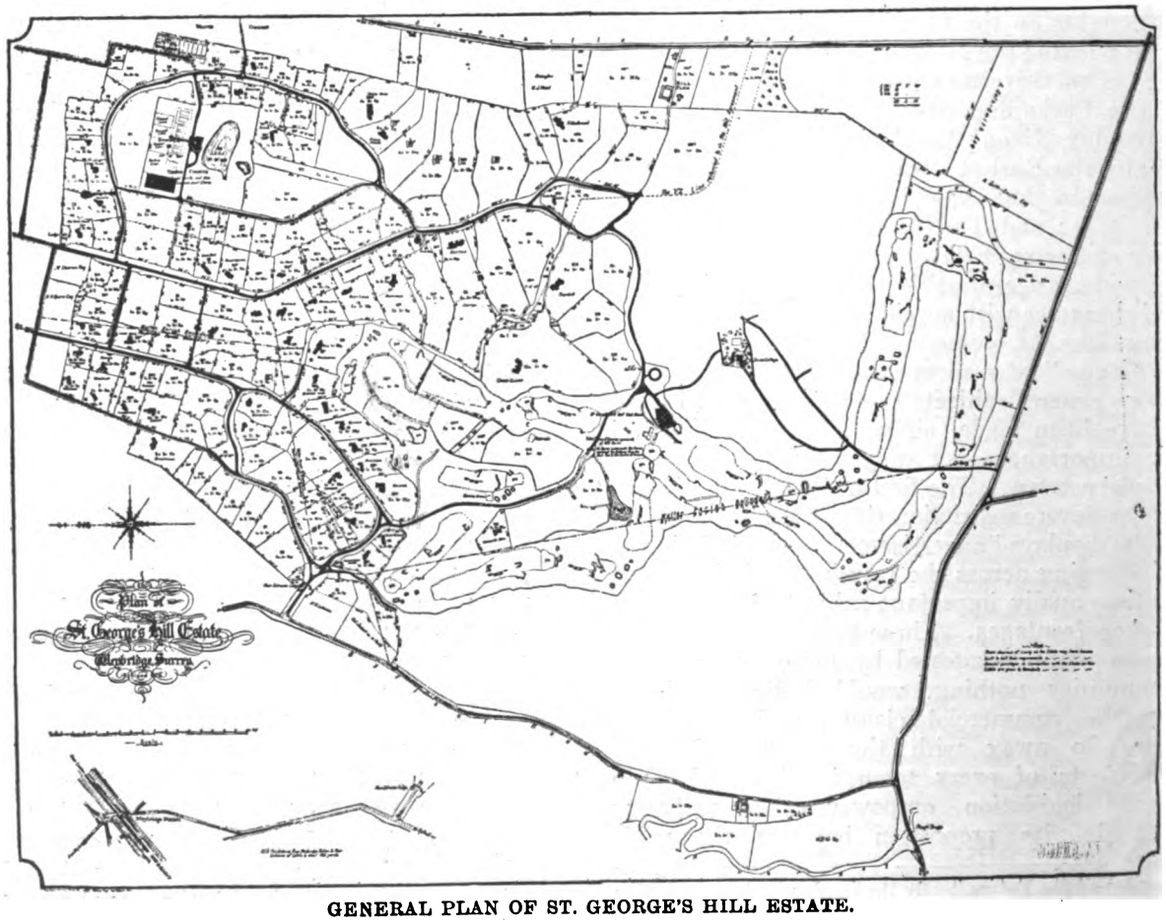
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one of the best and cheapest services of trains in the world up to 1914 can almost be trusted to look after public interests without interference. If lines are obsolete and unremunerative we believe the companies, whose managers and directors are not all fools, can be trusted to deal with them without the help of State Socialists. Unless the State is prepared to buy the railway systems at a fair valuation they must act justly by those whose enterprise has created our railway system. That what are clearly mistakes in 1921 should not have been apparent in 1850 is not surprising. We are not suggesting that Mr. Leaning's scheme is not soundly conceived, but we claim that it can only be effected either by the outright purchase of the railways or by agreement between them. We believe the wiser course would be not to restrict the companies' powers but to enlarge them in directions in which their activities might reasonably produce revenue which could be employed by them in improvements. They should no longer be debarred as railway companies from holding and developing land which they are often in a position to do with great advantage. In giving the companies such powers it would be reasonable to insist that their schemes should receive sanction as town-planning schemes, and that they should build a certain proportion of workers' houses in every area they developed; and, further, that they should purchase what they meant to develop outright, and not hold it out of the market by a system of options. We think that if the railways were treated sympathetically, and not as suspects, they would show a greater desire to meet the wants of the public. This, we believe, is the form that "co-operation" should take, rather than in the direction of suggesting the elimination of competition by cutting down facilities. If it is in the interests of London that their services in the Metropolitan Area should be pooled and divided, it is in their own interests to do so, and they are in a position to come to a friendly agreement without outside interference with the rights conferred on them by Parliament. We make this point because Mr. Adshead, in his article on Central London, speaks airily about railway nationalisation, and we believe that if anything has been proved between 1914 and 1921 it is that our railways, our mines, our housing, and other services are better in private than in public hands, and that an extension of the powers of the State is not in the interest of the community.

If the railways have throttled a useful rival system of transit in the shape of canals for their own advantage, the State would, in our view, be justified in taking that up; and if they penalise home industries and favour foreign trade the State may well interfere; but, short of this, if the State wishes to own them, let it do so legitimately by fair purchase and compensation. We would, in a word, have reform by useful acts of creation, and not by the interference with what others have built up by their own efforts; and this principle we would have applied to the question of the "London of the Future" as to other great subjects. We shall comment further on some of the matters dealt with in the book at a later date.

Illustrations.

ST. GEORGE'S HILL ESTATE, WEYBRIDGE.



GENERAL PLAN OF ST. GEORGE'S HILL ESTATE.

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St. George's Hill Estate, Weybridge.

(See Inset Illustrations.)



ST. GEORGE'S HILL ESTATE—THE GOLF CLUB HOUSE

We are glad to be able to publish some views of houses recently erected on the St. George's Hill Estate at Weybridge, which Mr. W. G. Tarrant has developed with a skill and care which will earn him a lasting reputation. For he has shown by what he has done how one of the most beautiful districts in the Home Counties can be preserved with unimpaired advantages for all time, while it affords a delightful dwelling-place for a large number of those who wish to be within an easy reach of London. Mr. Tarrant has not made the two main mistakes of those who develop estates—spoiling natural beauties and ignoring natural boundaries in the effort to secure the highest land-values, and neglecting the all-important question of individual design in the endeavour to secure cheap building. The firm's great resources and enterprise have afforded the possibility of a low cost of production without the employment of adventitious devices. Every building has been well built, properly designed, and considered in relation to its surroundings. As the general plan shows, no effort has been made to secure uniform size of site. Some of the houses may be surrounded by thirty acres of their own, and others built on sites of one acre. The boundaries of the sites are only determined by the configuration and natural features of the site, so that each of them is as nearly as possible that which the owner would have selected had he been free to fix his own boundaries, while great care has been taken to place the house in such a manner as to secure privacy and the command of the best views and aspects. Very little cutting down has been done, while defined roads within the estate have been eliminated by the utilisation of the natural runnels or drives provided

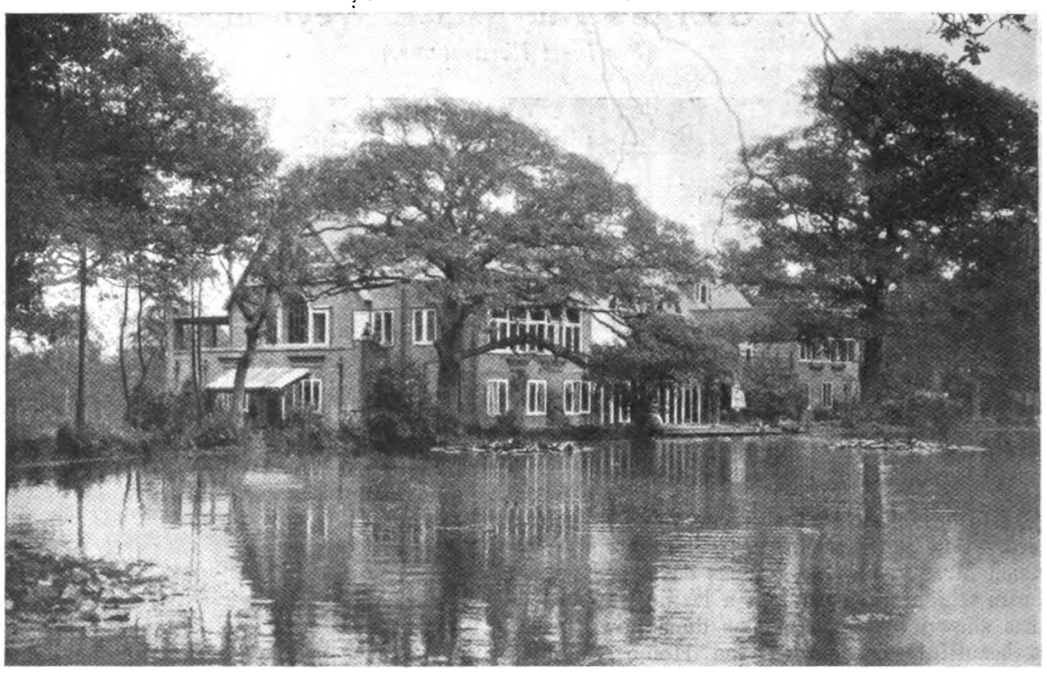


ST. GEORGE'S HILL ESTATE—VIEW OF THE GOLF COURSE.



ST. GEORGE'S HILL ESTATE—"ROCKWOOD." (Niven & Wigglesworth, Architects.)

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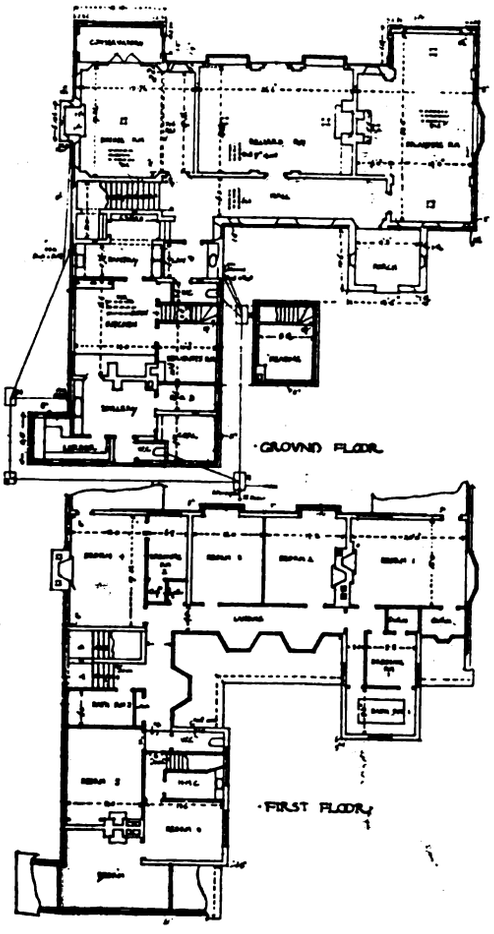


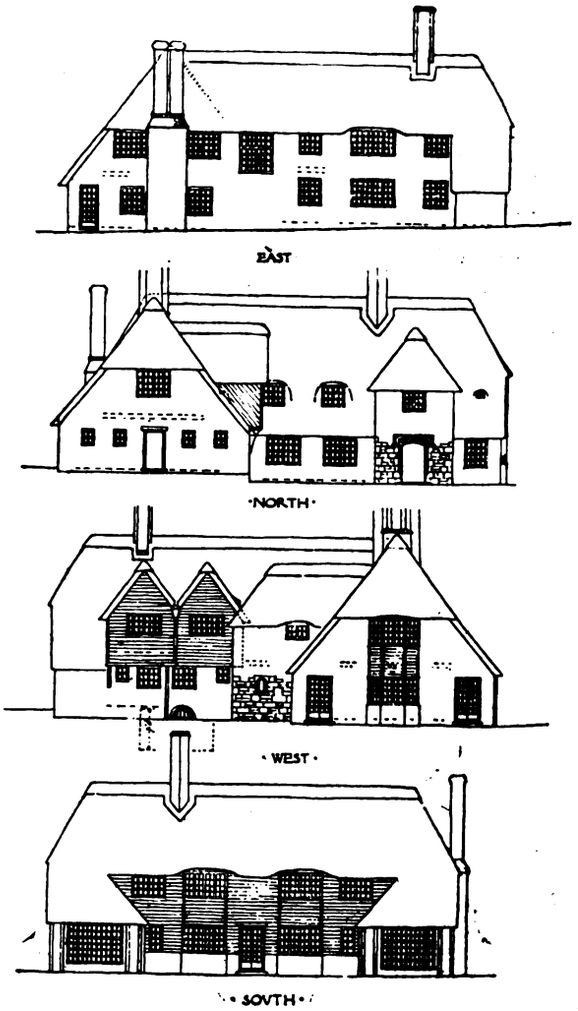
ST. GEORGE'S HILL ESTATE—THE CLUB HOUSE.

by Nature. In this manner, while each resident will have all the advantages of living on a well-laid-out and equipped building estate, he will have advantages similar to those enjoyed by one who dwells on a site within a great private park. Company's water and electric light are laid on to every house. There are cottages existing on the N.E. borders of the estate which serve to accommodate many of those employed on it, while a number of those who have acquired houses have provided their chauffeurs and others with accommodation in their own grounds. Golfers have been considered, and one of the best and most beautiful golf courses in England has been laid out by Mr. Harry Colt, together with a large and conveniently arranged golf club house, which we illustrate.

The distance of the lodge gates of the estate from Weybridge Station is about ten minutes' walk.

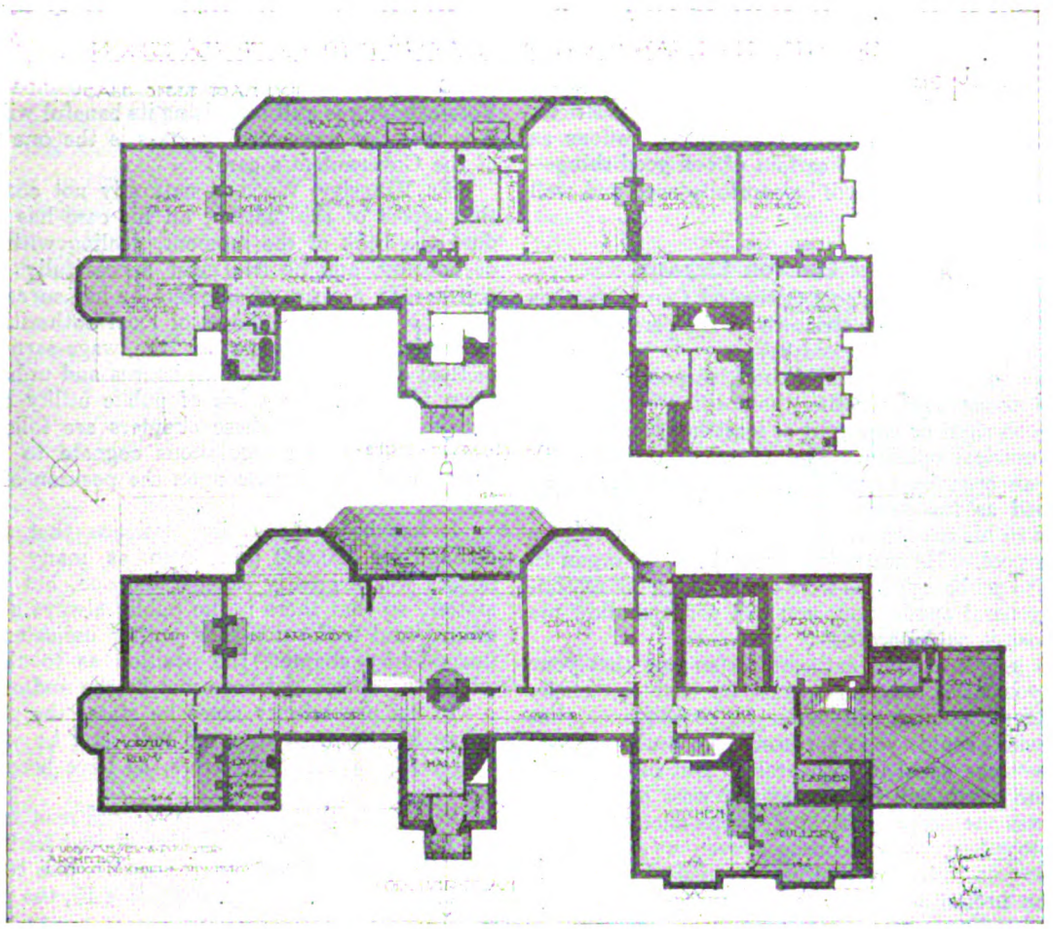
The soil is a mixture of sand and gravel, which,





ST. GEORGE'S HILL ESTATE—"BYLANDS." By Imrie & Pine-Coffin, Architects. (See Inset Illustrations.)

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ST. GEORGE'S HILL ESTATE—"SEFTON." By TUBBS, MESSER & POULTER, Architects. (See Inset Illustrations.)

together with the elevation of the site—about 200 feet—render it one of the healthiest localities in Southern England.

Enterprise and speculation are two great sources of national prosperity, but, unfortunately, those who have pursued them have often done so regardless of the welfare of the general community. Were this not so there would have been no great movement for the creation of garden cities, while we have often to regret the misapplied enthusiasm of those who embark on such ventures without sufficient knowledge or judgment. In the case of St. George's Hill Mr. Tarrant has created a great residential district by the exercise of his imagination, skill, and energy, which has reserved a beautiful tract of the country, given employment to thousands of men, and a beautiful place of residence to many, and this without the expenditure of any public money or incurring public responsibilities. We hope he may in the future in other districts inaugurate equally useful and beneficial schemes, as in so doing he is doing work of great public importance and usefulness.

Notes and Comments.

The Increase in Rates.

"THE TIMES," in an interesting article, calls attention to the facts disclosed in information furnished to the Ministry of Health as to the increased number of officials employed by London borough councils and the increased salaries paid to them. Such matters are most easily realised by percentages. Out of the twenty-eight boroughs and the Corporation of the City of London information has been withheld by eight councils, which are those controlled by Labour-Socialist majorities, which probably have excellent reasons for withholding information! In the municipal reform councils the increase in the number of officials employed as compared with 1914 is 5.79; in the case of councils controlled by Labour-Socialist majorities an increase of 26.47 has taken place in the same period. The increased remuneration in a similar period has been 156.85 in the municipal reform councils and 212.72 in those controlled by Labour-Socialist majorities. The hard-pressed ratepayers have thus a good reason for recording their votes at the next election—if the payment of rates does not form a pleasant recreation to them. It must, however, in fairness be remembered that the multiplication of work thrust on the councils by Parliament is never-ending, and that the first and chief means of ending it lies in the action of the House of Commons itself; and, secondly, that a large increase in the salaries paid was inevitable on account of the increased cost of living, while the additional wages paid to outdoor men for the necessary works of administration have been responsible for a great increase in the amount of money spent. It is, however, clear that a means must be found to stop these continuous claims on the resources of the public.

Hostels for Women.

A SUB-COMMITTEE in connection with the Housing Advisory Council appointed by Dr. Addison to consider how far it was advisable and possible to adopt communal and co-operative methods in connection with housing schemes has presented its report to Sir Alfred Mond on the necessity of giving aid to the formation of hostels for single working women. Formerly what was needed was provided by friendly societies and similar organisations whose operations have largely ceased, and present wants cannot be met by ordinary lodging-house accommodation. No one moving about London or the surrounding suburbs can fail to be struck by the reality of the want, as all means of conveyance are crowded by women workers who in past years would have been found at home. Whether or not it is necessary to invoke State aid to meet the difficulty is not clear to us, for the women to be accommodated, who may be described as earners of

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from 25*s.* to £4 0*s.* 0*d.* a week, are as a rule a most independent and self-respecting section of the community, working hard and living carefully. Much could be done we should think by a judicious system of making small alterations to a number of old houses in many districts, to be extended and improved by greater alterations as time permits, and we can be certain of one good thing—that this class of property will be carefully used and well looked after by the inmates.

The Placing of Church Organs.

THE chairman of the Liverpool Cathedral Committee has answered Mr. Woodward's stricture on the placing of the organ in the Lady Chapel, and says:—

"Permit me, as chairman of the Liverpool Cathedral Committee, to say that, whether the position of the organ in question be right or wrong, it at least had the sanction of expert musical opinion. The career of the late Dr. Pearce as an organist in public worship was almost as distinguished as his career as a concert player, which culminated in his succession to Mr. Best at St. George's Hall, Liverpool. He warmly approved of the organ in the Lady Chapel being at the west end, and, as his reasoning had a general application, you will perhaps allow me to summarise it as follows:—

"'The length of your cathedral is so vast that your organ, if you have only one, must be near the choir. Congregational singing will suffer in consequence, but not otherwise could you perform the anthems and elaborate settings usual in cathedrals. But in the Lady Chapel your organ will be best at the west end. That position gives the people a backing, keeps choir and congregation together, and encourages even a small congregation to join in hymns and psalms instead of regarding it as an impertinent interference with the talent at the east end. Your elaborate music will, in a few years, no doubt, be chiefly, if not solely, in the cathedral itself, as is usual, instead of in the Lady Chapel.'

"Not all may concur in Dr. Pearce's reasoning, but I think it covered our problem, and may help others."

We think that the answer is a complete vindication of the plan adopted. But, apart from this, the very much greater æsthetic value of an organ placed in a central west position should, we think, weigh heavily with those who have to solve similar problems, and there is no other position in which a great organ can be seen to equal advantage.

New Books.

"The Law and Practice with regard to Housing in England and Wales." By Sir Kingsley Wood, M.P., S.S.C. London: Messrs. Henry Frowde and Hodder and Stoughton. £2 2*s.* net.

THE Joint Committee of the two publishing firms mentioned have produced a valuable book of reference for architects, builders, and solicitors concerned with this very important and pressing question of the day. Dr. Christopher Addison contributes a page of preface, and rightly bears testimony to the "clear and concise explanation of legislation, such as is afforded by this work"; if extra evidence were necessary as to the importance of the subject, it would be forthcoming in the fact, that despite the author's conciseness of personal treatment, the book occupies close upon 800 pages, the preliminary table of contents and list of official publications and the final well-prepared and valuable index contributing to the merits of the book.

Amongst all those, upon whom the war has borne harshly, there is no doubt, that the members of the architectural profession have felt with greatest keenness the edge of the sword, and the end of the period of tribulation is not yet in sight. In the meanwhile, the matter of housing provides a certain amount of work for architects here and there, but most of the brotherhood must rest satisfied to live in hope, whilst some may even die in despair.

A mistake made by the governing powers is to think that the country can possibly benefit by the restriction on building, now continued long after the call for such restriction (originally justified) has ceased to operate. Vote-catching is still exercising its baneful wiles, and thus it is that the wage-earning class is the one great object of the Government's care.

Sir Kingsley Wood is naturally not concerned with this aspect of the matter; all his care has been to produce the book of the moment, dealing with the subject of housing, and he has most successfully achieved his object. In a series of chapters he has successively dealt with the powers and duties of local authorities regarding the provision of houses for the wage-earners and the method of dealing with unfit houses and unhealthy areas, town planning, the work of public utility societies and housing trusts, and these chapters are followed by the texts of Acts and regulations cognate to the subject. There is also a chapter upon the position of the private builder.

It has been shown by statistics that the original demand for 500,000 (aye, even as many as 800,000) houses was a greatly exaggerated one, but what does it matter, so that there is the public always at hand to be milked and mulcted? The author indicates, in a brief introductory chapter, the position as to the extent to which the deficit had been met by the end of 1920.

In his preliminary notes he states the probability of errors having crept into the text, and he will therefore appreciate having such errors, as have been discovered, pointed out.

Page 7, tenth line, the year should read as 1919; page 13, line 13, the section number should be 26; page 17, line 16, xi. should read xvii.; page 30, line 10, "higher" should read "lower"; page 31, line 18, the page number should be 257.

But the worst errors discovered are in the tables on pages 28 and 29, giving statistics as to the number of houses erected at varying prices and the average cost per house. If we are to accept the detailed averages as correct, then the averages obtained from the totals are hopelessly incorrect; to take here merely the following four examples:—

The average cost of the		**5,824 houses works out at**			**£684**
Do.	**do.**	**36,381**	**do.**	**do.**	**£712**
Do.	**do.**	**13,771**	**do.**	**do.**	**£706**
Do.	**do.**	**22,610**	**do.**	**do.**	**£717**

These are very different results from £704, £820, £747, and £864 respectively.

Dr. Addison, then Minister of Health, speaking in the Commons, stated that he was unable satisfactorily to define the working-classes. Some people would caustically declare that the so-called working classes are those who do the least work and do it with the greatest ill-will, but perhaps a better definition would be to describe them as the wage-earning class, paid by the day, the hour, or/and by the piece. The Government's feeble attempts at economy, to which attention is directed at places, would be more welcome were the waste in other directions avoided. Sir Kingsley remarks that "in 1909 there was a building boom: too many houses were being built, and it was the following slump which discouraged builders, and produced to some extent the present shortage"; generally the period of depression is attributed to the operation of the Finance Act, 1909-10.

If builders have reason to think that they have been hard hit by recent legislation (or want of legislation) they can at least console themselves in an earlier enactment, under Section 45, Public Health Acts Amendment Act, 1907 (to which the author draws attention), regarding the application of a test to suspected drains. The architect's friend, the hydraulic test, is hereby debarred. We say "the architect's friend," but it is really the public's friend. But, as we have stated our views upon this point in public many years ago, we will not repeat here and now the argument in favour of an efficient test.

We heartily commend Sir Kingsley Wood's book to the attention of the local authorities and the public in general.

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London Art Galleries.

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THE present exhibition of Drawings by Old Masters from the collections within the Museum, now being shown in the Victoria and Albert Museum, is one of such interest that I propose to treat it in some detail. These drawings may be taken as a representative series of the Italian, German, Dutch, French, and English Masters from the different collections within the Museum, two of the most important and richest among these being the bequest of the Rev. Alexander Dyce in 1869, who gave to the nation not only his printed books and manuscripts, but also a valuable collection of paintings and drawings, which last included early drawings of the Florentine School, and by Raphael and Titian, fifteen studies by Tintoretto for the great San Rocco "Crucifixion," drawings by Rubens and the Dutchmen; and among the English twenty-eight drawings—which I shall notice specially later—by Richard Wilson and twenty-six by Gainsborough. The Ionides Collection, bequeathed in 1899, was, besides the French nineteenth-century paintings, well supplied with Old Master drawings; and the Dalton Bequest included Van Dyck, Van Ostade, and Rembrandt.

Out of this material a well-chosen selection commences with thirty-eight drawings of the Italian school, which are in many cases of the very first interest, even when sometimes their attribution cannot be considered as certain. This remark would apply to the "Virgin and Child," ascribed to Benozzo Gozzoli, and belonging certainly to his period and school, in which the draped figure of a man looking on is finely and cleanly drawn; to the "Venus Pouring Out a Libation," once ascribed to Mantegna, but probably by some lesser man working under his influence; to the naked woman carrying an urn—like this last, in pen and brown ink—which is hardly strong enough, in my judgment, for Pollajuolo, besides being elongated out of proportion; and to the "Portrait of a Youth," ascribed to Raphael.

On the other hand, in the group of drawings in the centre of the room (24-33), beginning with Tintoretto, we touch very fine and original work. The four Tintoretto drawings come to us, through the Dalton Bequest, from the collections of Sir Joshua Reynolds and Benjamin West; they are selected from the fifteen I mentioned, and, while all are good, it would be difficult to surpass the splendid vigour of movement in the figure of a monk kneeling (selected, very appropriately, as frontispiece to the excellent catalogue), his head thrown back, his arms outspread in astonishment and adoration. All these four drawings are on blue squared paper, in black chalk, sometimes heightened with white—free, bold, and brilliant studies of intense emotion, for in that of the man falling his knees seem to be giving way from sudden fright.

Federigo Baroccio was already touching on the Baroque period, but is a fine creative artist, both in portraiture and religious paintings, though with him—as the catalogue very properly points out—another element, that of the pietistic or sentimentally religious, which forms such a strong feature in Carlo Dolci's art is already apparent. Yet how fine in movement is his drawing here in chalk and flake-white, showing the risen Christ appearing to Mary Magdalen. He turns with a sudden swing of his whole body towards the passionate and adoring woman, overcome with emotion at the unexpected vision of her Lord and Master. For power of drawing the nude male figure studies in red chalk by Annibale Caracci are unequalled among the Italians here, one of these, a man seated turned to the right, before it came into the hands of Miss Emily Frances Dalton, having been in the collections of Sir Peter Lely and Richard Cosway; though I should myself be disposed to put the whole Baroque movement in art and architecture as later than the Caracci, and not, as the catalogue seems to suggest, as in any way contemporary. A fine red chalk study by Correggio, heightened with white over the bistre wash, of a flying Amorino, forming part of a design for a cornice, belonged also to Sir Peter Lely, and is described, I should think correctly, as an authentic and beautiful drawing by the great North Italian Master; though Dr. Borenius seems disposed to question the delightful "Virgin and Child," in black chalk touched with white on blue paper, which appears, I think with strong reason, under Titian.

Lastly among these Italians I shall mention three brilliant drawings by Francesco Guardi, which have all the vivacity, the "brio" of that great Venetian, all his sense of light and atmosphere. The technique is brown line or pen and wash; the subjects steps leading to an arch, or—in one from the Ionides collection—an avenue leading up to a country house, probably one of those villas on the mainland whither the Venetians went for their summer "villegiatura."

I must treat more briefly the German, Dutch, and Flemish drawings, though one would like to linger over such a creation as Albrecht Dürer's marvellous bagpipe-player, mounted on a lean horse, with, in the corner, a little study of the Virgin and Child, all this in pure pen-line and signed A.D. 1512, with the quality of line of a Hokusai—a veritable masterpiece from the Dyce Bequest, which had been first overlooked and then condemned. Yet again the Rembrandts claim our attention, and the superb figure studies by Peter Paul Rubens, which had belonged to Sir Thomas Lawrence and Richard Cosway; while among the English work I should pick out specially two sets of landscape, nearly all in black chalk on grey paper, by Thomas Gainsborough, R.A., and Richard Wilson, R.A., the latter taking his subjects from Italy and specially from Rome and her Campagna.

I noticed last week the London Salon of Photography, and wish now to give some account of the sixty-sixth annual exhibition of the Royal Photographic Society of Great Britain, held in that Society's rooms at 35 Russell Square, W.C., from September to October 29. The exhibition seems to me especially successful in portrait and landscape work. The former of these appears on the first wall—Mr. Drummond Young's bromide of "Mrs. M. W.," Horace Jackson's "Out of the Blackness," a cleverly lighted girl's head, Mrs. Maud Basil's "Ferdinand Flodin of Stockholm," and Edward Weston's "palladiotype" of the "Head of an Italian Girl," in an effective method like that of a platinotype but using instead palladium. Another successful method is that of "hand-coated platinum" applied by Mr. Macnaughtan to sunlight effects in landscape; and among the figure-work Kate Smith's "In the Heart of the Wood" and Arthur Miller's "Nude Study" may be noted, while Miss Janet Allan, who exhibited also in the London Salon this year, has some good carbon studies of children in "The Bottom Drawer" and "Grandmother's Work-box."

The wall facing as we enter holds a very good line of landscape camera studies. Among these I noticed specially "Evening on the Arun," by Bertram Cox, F.R.P.S.; "Lengthening Shadows" in Arundel Park, by T. H. P. Scott, F.R.P.S.; "London," by A. Banfield, F.R.P.S.; Louis Steele's "Evening Sunlight, Venice"; and J. J. Happ's bromide of "Sunset at Hradchui, Praha," which would surely be more recognisable if the proper title was given as "Hradcany, Prague."

In the corner of this wall is Miss Boughton's portrait-study of G. K. Chesterton, and just round the corner Arthur Banfield's admirable "Generating Station" and a characteristic study by W. U. Summons of the Ponte Vecchio at Florence, in which the point of view has been very well chosen: S. B.

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Studies of the English Sculptors from Pierce to Chantrey.

VI.—John Bushnell (d. 1701).

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STATUE OF CHARLES I. By JOHN BUSHNELL.
From the Royal Exchange of 1667, now in the Central Criminal Court.)

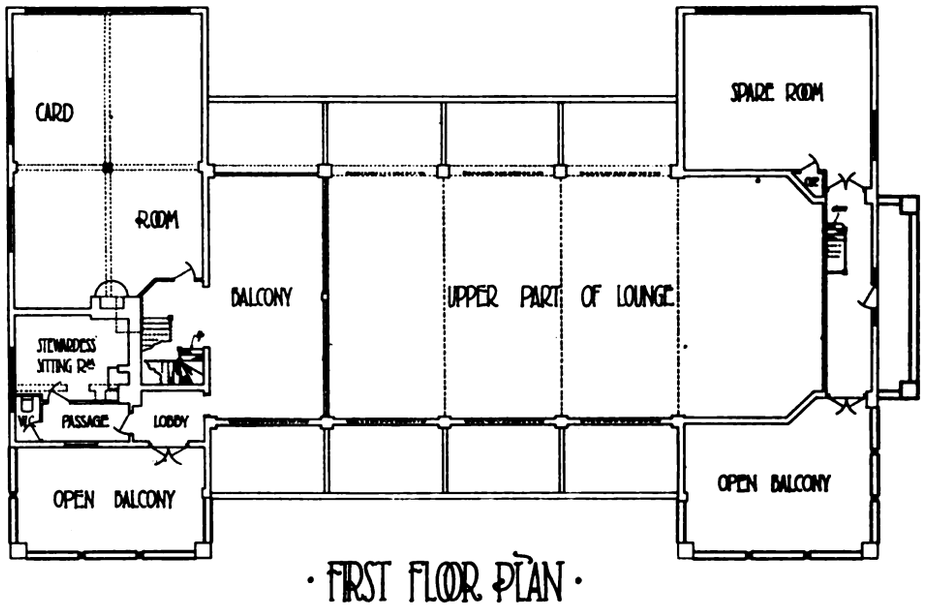
JOHN BUSHNELL, a pupil of Thomas Burman (died 1674), a minor sculptor who is chiefly known to fame by his bust of Bishop Duppa in Westminster Abbey and the record, fortunately preserved in writing, of his tomb of Beale, the portrait painter's father, at Walton-on-Thames, was a humorist in the full sense of the word, and has been even less adequately treated by biographers than most of his contemporaries. His master having obliged him to marry a member of his household whom he had injured, he went abroad, and "stay'd two years in France on his way to Italy, went to Rome, &c.," as Sir James Thornhill told Vertue. "He took pleasure," adds Vertue, "to travel as a poor fellow, and workt in several towns. At first, with Masters, he would enter himself as a labourer or poor fellow, and, after some time, by degrees, surprise them by doing better and better." While in Venice he was "imploy'd by a Granduc or Procuratore de St. Marc, for whom he did a vast Monument in Basso Relievo, being a Siege of Candia and a fight against the Turks, in which great work he was imploy'd above six years"; this monument I am unable to identify, but it would be of the greatest interest could it be discovered. He returned to England via Hamburg, where he also met with employment; was commissioned to undertake the statue of Gresham "upstairs in the Royal Exchange"; and began on the series of Kings meant to adorn that edifice "some of his first works after his return," of which he completed the Charles I. and Charles II., which were placed in the Exchange (see Note at the end of this paper) and intended to do the whole series, "but, hearing that another person (I suppose Cibber) had made interest to carve some of them, he would not proceed, though he had begun six or seven," these being, according to the Vertue MSS., "Edward Sixt., Q. Mary, Qu. Elizb., King James I., King Charles I. and II." Of the Charles II. Vertue goes on: "His manner of design was great and spirituous [*sic*], not elegant or graceful," and he also describes Bushnell's bust of Talman, the architect of Chatsworth, as "exaggerated from nature." Bushnell, in fact, was, as Vertue says of his work on the great Mordaunt monument at Fulham, "a mannerist," and the same authority saw equal fire and spirit and a certain neglect of detail certainly not visible at Fulham in the lost statue of Alexander the Great which Bushnell executed to refute his contemporaries' sneer that, whereas "he was skilfull in drapery, he could not execute a naked figure." The astonishing quality of Bushnell's work may be realised from the superb Charles I. and Charles II. which were saved from the fire at the Royal Exchange in 1838, and which stand, utterly unknown to guide books, in the Upper Hall of the New Bailey. Were they published without a name few would hesitate to ascribe them to Bernini, and it will probably come as a surprise to all students that in the 1660's we had a sculptor great enough to execute such works. "Great and spirituous" they certainly are, and "skilfull" is too poor a word for the magnificent fluttering draperies. If Pierce is the English Bernini in his busts, Bushnell is certainly so in his full-length figures.

The lost Alexander appears to have been among the later works, and Walpole and Vertue saw in the figures of the Kings on Temple Bar, set up in 1670-72, and the only definite proof of Bushnell's connection with Wren, the best things he did. For these statues the sculptor received £480; they represent King James and his Queen, who originally faced towards the City, and now face on to the road outside Theobald's Park, and Charles I. and Charles II. on the Westminster (now on the Park) side of Temple Bar. There is great dignity about these figures, if also a certain ungainliness of proportion; they are Italianate, as one would expect of Bushnell's antecedents; but surely no one who has examined the other Stuart statues or the Mordaunt monument at Fulham (1675) could place the Royal statues above these splendid figures.

It will be convenient to treat all Bushnell's monumental works together, and for this purpose we will begin with his earliest in England, the florid tablet to Cowley (1618-67) surmounted by a laurel-wreath crowned by gilt flames in Westminster Abbey, and that to Sir Palmes Fairborne (1644-80) the gallant Governor of Tangier, with its epitaph by Dryden. In view of Fairborne's services against the Turks, one may guess that the fame of Bushnell's Venetian monument led to his receiving this second commission to commemorate the siege of Candia. Though they are widely separated in date, both are examples of the dignified tablet-work of the period, unadorned with effigies. With them may conveniently be classed the charming tablet surmounted by a bust to Mrs. Grew, wife of the famous vegetable physiologist Dr. Nehemiah Grew, in Christ Church, Newgate Street. The very existence of this little lady, with her expressive face and simply-knotted hair, has escaped the historian of Dr. Grew in the D.N.B., who mentions only a later marriage; but the monument, ill-placed as it is, is well worth a visit. Infinitely more elaborate is the vast altar-tomb of black and white marble erected in memory of

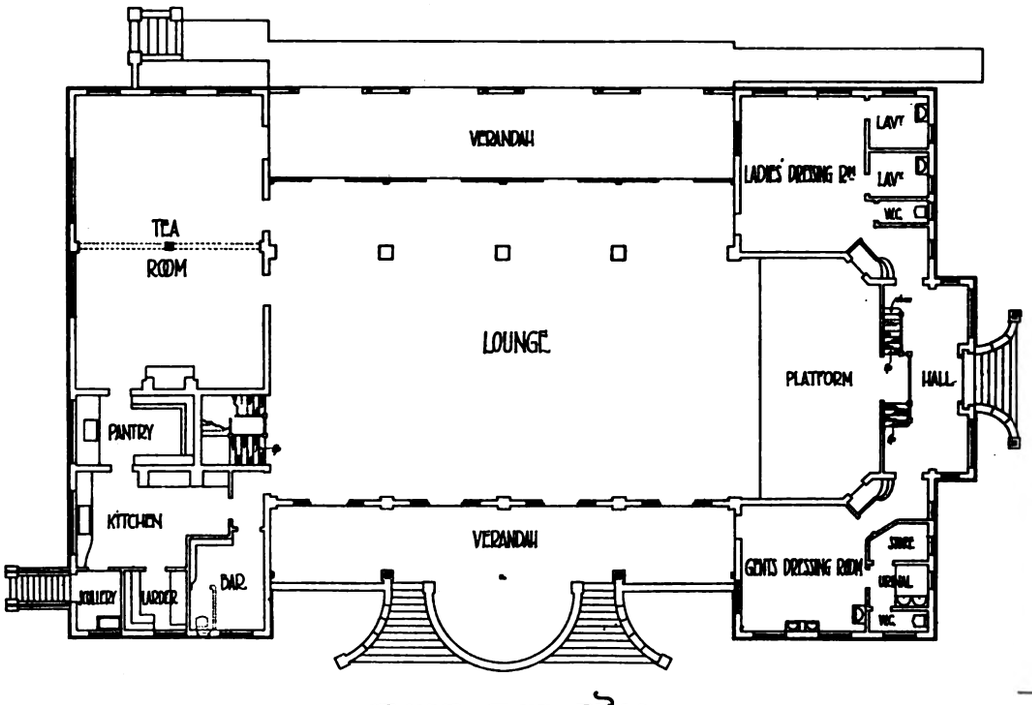
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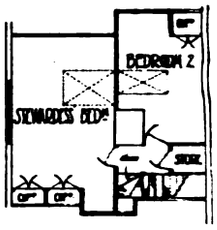


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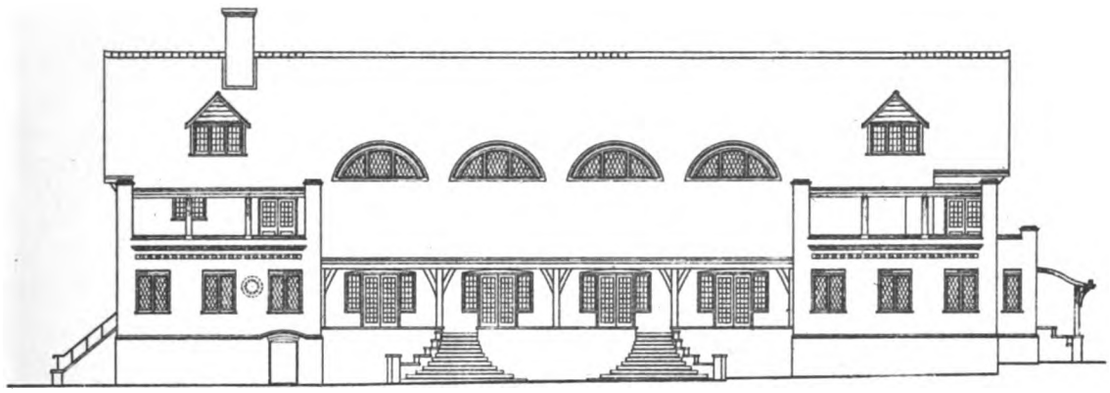


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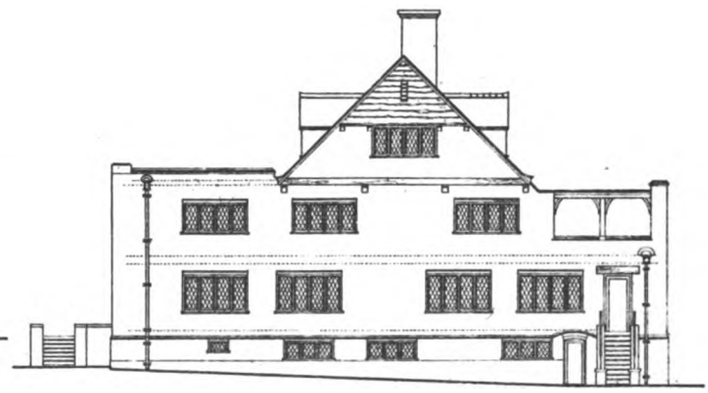
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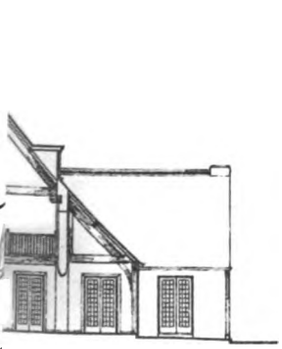
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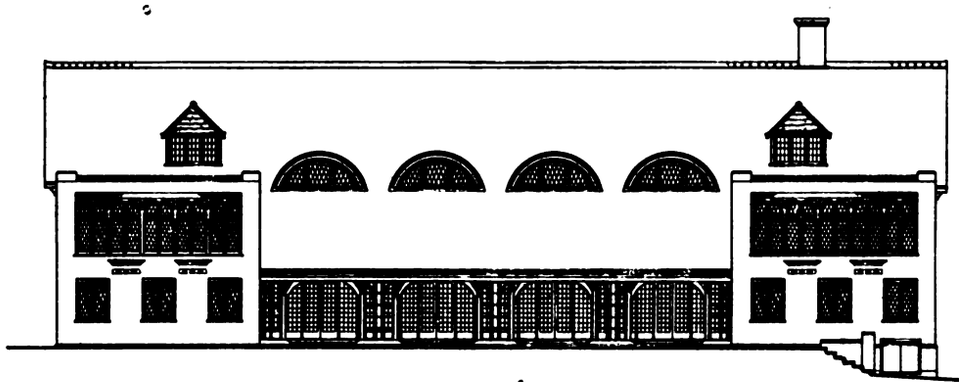


·WEST ELEVATION·



·EAST ELEVATION·





·SOUTH ELEVATION·

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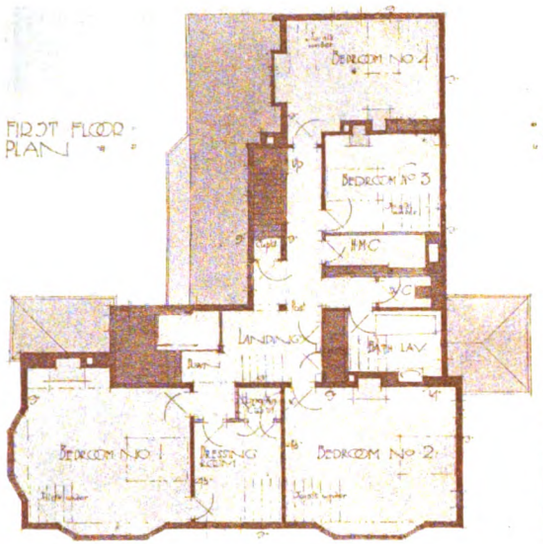
TENNIS CLUB.

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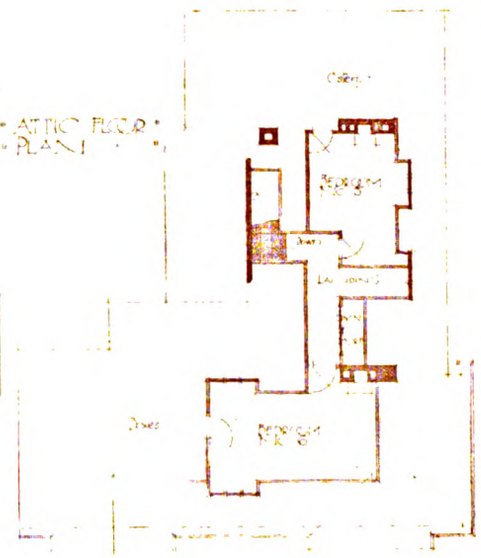
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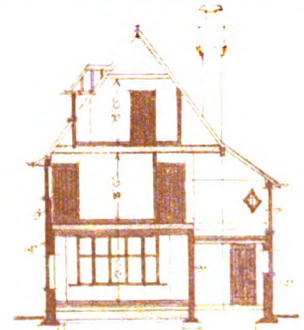
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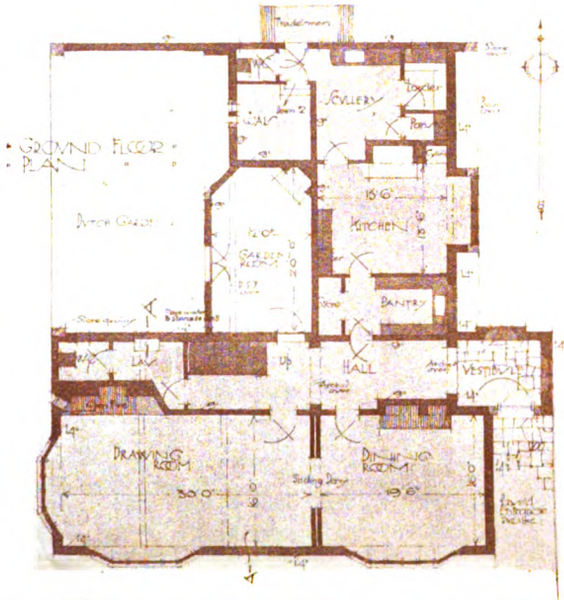
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GROUND FLOOR PLAN

PROPOSED HOUSE ON THE ST GEORGE'S HILL ESTATE WEYBRIDGE SURREY TO BE KNOWN AS "ARDROGUE" JANUARY 1913 PLOT NO 18



EAST ELEVATION



WEST ELEVATION



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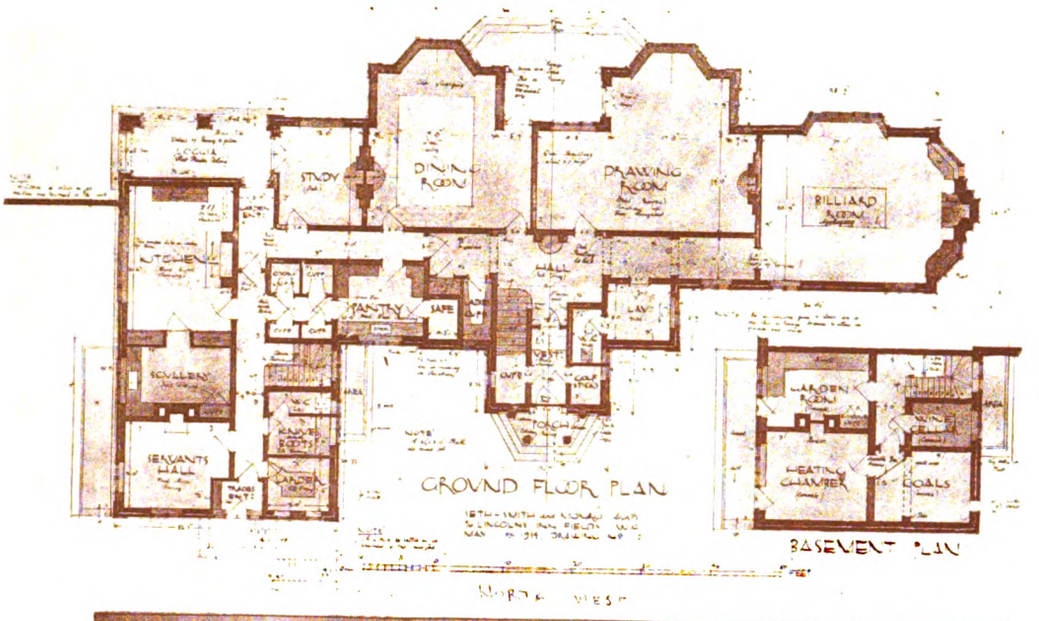
KEY TO SHADED AREAS
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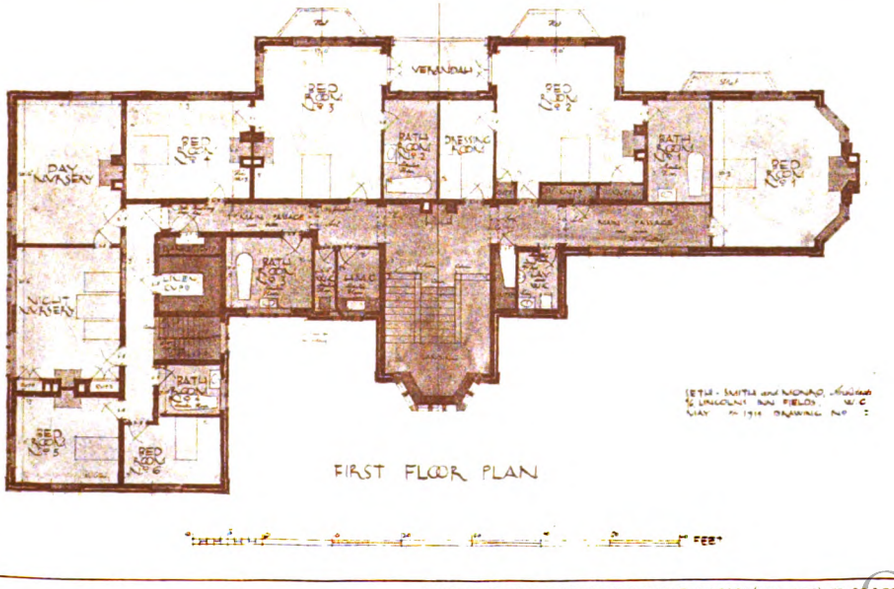
ARDROGUE: ST. GEORGE'S HILL ESTATE.
KENNETH WOOD & SARVIS, ARCHITECTS.

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"ABBOTSWOOD"
ST GEORGES HILL . WEYBRIDGE
For W. G. Tarrant Esq.







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ABBOTSWOOD : ST. GEORGE'S HILL ESTATE.

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Henry O'Brien, seventh Earl of Thomond, in the church of Great Billing, Northants, Bridges' description of which, written some twenty years after its erection, is far more vivid than later accounts. "Under a curtain drawn by two flying cherubim are the busts of a man and his wife (the Earl and Countess of Thomond) rising out of a tomb and praying; by the man, in a posture of prayer, is the demi-effigies of a son, and of a daughter by the woman. On the side of the tomb [in relief, though one would not gather so from Bridges] are the representation of four sons and one daughter praying, with books in their hands; and upon the tomb is an infant in swadling clothes, the right hand of the mother lying upon an open book." Bridges omits to mention that from the centre of the monument rises a pyramid bearing the arms of the family and surmounted by an urn; the whole, in fact, is an example of the Berninesque art of Bushnell, though not among his best works. It is not hard to trace in it analogies to the contemporary tombs at Venice on which Ruskin is so severe; and the fantastic mixture of busts and half-figures, of curtains, flying cherubim, and delicate relief, is greater than in the case of other English sculptors, and certainly suggests the Venetian monuments rather than contemporary English work, though, as already remarked, the half-figures and relief suggest the work of Stone. The writer has not seen, and has found no detailed description of, one of Bushnell's latest works, the monument to Lord Ashburnham in Ashburnham Church, Sussex, and must therefore be content with a brief notice of its existence.

We now come to the superb figure of Viscount Mordaunt on the tomb at Fulham. In my last paper I mentioned it as universally ascribed to Bird, but showed that, as Bird was only eight years old when it was erected, he could have had no share in it. Walpole, in fact, clearly muddled his notes when the spoke of this "magnificent monument" as the work of Bird, and stated that he received £250 for it; and Dallaway, in noting that Bushnell executed "the statue only," failed to notice the absurdity of leaving Walpole's ascription of it to Bird uncorrected, though that he is right in saying that Bushnell is only responsible for the statue received confirmation from Vertue's statement that the whole monument cost £400 and Bushnell "got near 250 pounds" for his share. It is impossible, however, not to believe that the whole baroque design is his, even if parts of it were executed by other hands. Vertue's description is avowedly based on Bowack's "Monuments of Middlesex (1706)," a most valuable publication which unhappily reached only two numbers; and it seems better, therefore, to quote Bowack rather than Vertue's MS. *réchauffé* of Bowack: "A most Magnificent Monument, Erected to the Memory of *John* Lord Mordaunt Vicount de Haviland of white and black Marble designed thus. Upon a large Table of Black Polish'd Marble between 4 and 5 Feet High, supported by a white Pedestal of the same Stone [a fantastically shaped sarcophagus, in fact], stands a Marble Statue of the said Lord, somewhat bigger than the Life in His Robes, with a Battoon or staff of Command in his right Hand as being Constable of *Windsor Castle*. 'Tis done with abundance of spirit by that late celebrated English Statuary Mr. Bushnel [Bushnell had died four years before] and cost near £250. His Coronet and Gauntlets are supported by Two Beautiful Stands at each outward Corner of the said Table, and Two Ovals of white Marble against the Wall by Two other. The whole Performance is extraordinary Fine and is computed at £400." One of these tablets bears an inscription to the "Nobilissimus Heros," the other a long pedigree of the House of Mordaunt. The vivid effect of the statue in this fantastic setting is due to the superb quality of the sculpture, especially of the head and drapery, which are worthy of Bernini himself. Bowack's phrase "In his robes" is, however, misleading, since the Viscount wears a close-fitting, sleeveless doublet, a pair of short, full-trunk hose, barely visible under the voluminous cloak, bare



STATUE OF CHARLES II. By JOHN BUSHNELL.
(From the Royal Exchange of 1667, now in the Central Criminal Court.)

legs and the "classical" greaves stopping short of the toes dear to the sculptor's generation.

But sculpture proper did not exhaust Bushnell's activities. Vertue give an extraordinary account of his wooden model of the Trojan Horse, executed to the commission of a couple of vintners, who intended to use the object as a drinking-booth. The head alone would accommodate twelve men sitting round a table, the eyes forming the windows; but before it was half finished a fierce wind demolished the structure, and he refused to embark on it again, though the refusal cost him £500. Again he proposed a scheme for bringing coals by sea to London, but this, too, failed, and involved him in "deeper cost." Finally, he bought an estate in Kent, lost it in a law suit, and lost his reason, dying in 1701, when he was buried, says Vertue at "Padington." He left two sons and a daughter, who lived "in the lane leading from Piccadilly to Tyburn" in a house built by the sculptor, but furnished with neither floors nor staircase. Vertue's account of his visit in 1725 is of very great interest, but is too long to quote; he saw the younger son again, and got more information from him, in March 1726. There he saw the Alexander, sorely damaged but fine and spirited; a ruined model of an equestrian statue of Charles II.; the discarded Kings and Queens for the Royal Exchange; a half-obliterated picture of a Triumph, the only work of Bushnell's we read of in this medium, leaning against a wall; but what the sons desired him to

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MONUMENT TO THE SEVENTH EARL OF THOMOND GREAT BILLING, NORTHANTS. By JOHN BUSHNELL.

take special notice of was a thick bar of iron as big as a man's fist cracked in two by an instrument of the sculptor's devising, another proof of the mechanical genius that was for ever haunting Bushnell.

In this strange abode, in what we now call Park Lane, his children lived like hermits, protesting that "the world had not been worthy of their father." In truth, his life had been a failure; yet he was a great artist, whose merit is still unrecognised to-day. Now that the tyranny of Ruskin is removed, we should do well to admit Bushnell into the goodly company of English sculptors less grudgingly than heretofore; and if we take the trouble to go no further than to Fulham and to the New Bailey we shall find no difficulty in acknowledging his merits.

NOTE.—The rather perplexed subject of the statues at the second Royal Exchange can best be discussed here. First we have Vertue's note, "The Statute of Sr. Tho. Gresham in the Royal Exchange now standing was made by Bushnell 1671, the former old statue demolished or broken." Next we have the text and MS. notes and appendix of Ward's own copy of his "History of Gresham College" (1740), from which we learn that this "former old statue" was erected by the order of the City of London and the Mercers' Company in 1622, that "from the year 1627 it stood at the north end of the west isle [aisle] of the quadrangle," and that in the Fire "the Royal Exchange was burnt down, and all the stately and kingly effigies of it wholly demolished, except his, the founder's, which yet stands in its arch undefaced," safe and sound after the Fire as Noah after the Flood, according to a contemporary divine. Pepys also mentioned the circumstance in his Diary. When the Exchange was rebuilt, however, it was "adorned not only with the statues of our kings, like the former Exchange, but likewise with two of Sir Thomas Gresham, one placed under the south end facing Cornhill, made in 1671 by the famous Mr. Bushnell, sculptor of those two fine statues of King Charles the First and Second in the front of the same arch; and the other erected in the west walk of the piazza, where the old one stood before the Fire." Another note informs us that the *old* statue of Gresham "was afterwards, as I have been informed, *in* the possession of Mr. Bushnall the Statuary." *His* own statue in its niche forms the frontispiece to Ward's book, and was engraved by Vertue; it is not that now at the New Bailey, but a free copy of the head and shoulders may be seen in the Temple of British Worthies at Stowe, executed probably by Scheemakers, which seems to prove that it was the accepted type for Sir Thomas Gresham. So much for Bushnell; now for the statue which, Ward says, was "erected in the west walk of the piazza." The painter Laroon told Vertue, as we learn from the MSS., that "the statues of the Kings within the Royal Exchange were mostly done by Cibert as far round about as King Charles, and the statue of Sr. Thomas Gresham in the Walks underneath the Piazza is sd. to be of Cibbert." Now Laroon knew Cibber, and had painted him, and it was probably he who told Vertue that Cibber "was born at Flensburg, in the dukedom of Sleswick, on the shores of the Baltick," so that his authority carries great weight.

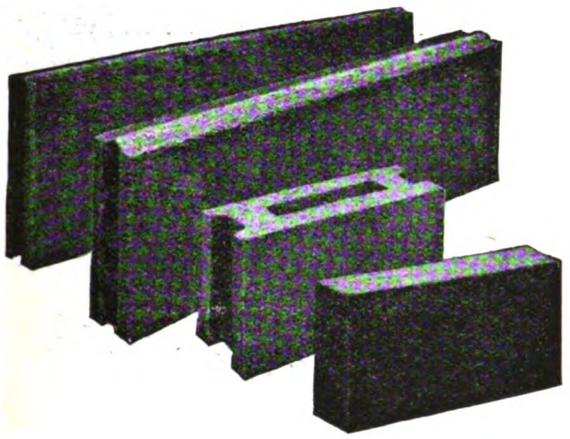
Clearly, then, there were only two statues of Gresham at the Royal Exchange, and that commonly attributed to Pierce must—as, indeed, appears from Walpole's punctuation—have stood elsewhere; one of these was by Bushnell and one attributed to Cibber. As the original statue of Gresham survived the Fire of 1666, so one of these two, now in the New Bailey, survived that of 1838. Vertue's engraving of Bushnell's statue shows that his work differed in every particular from this surviving

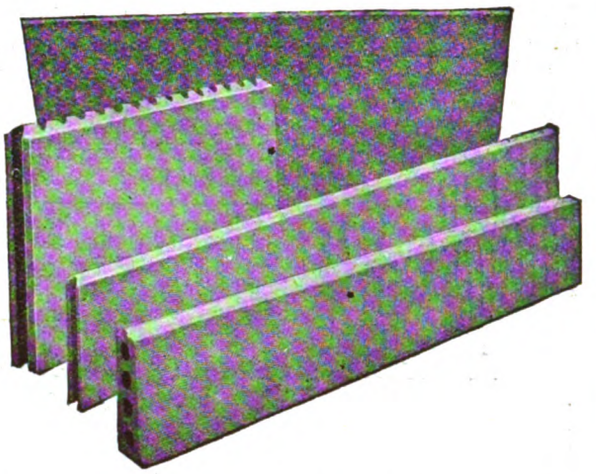


MORDAUNT MONUMENT, ALL SAINT'S, FULHAM. By JOHN BUSHNELL

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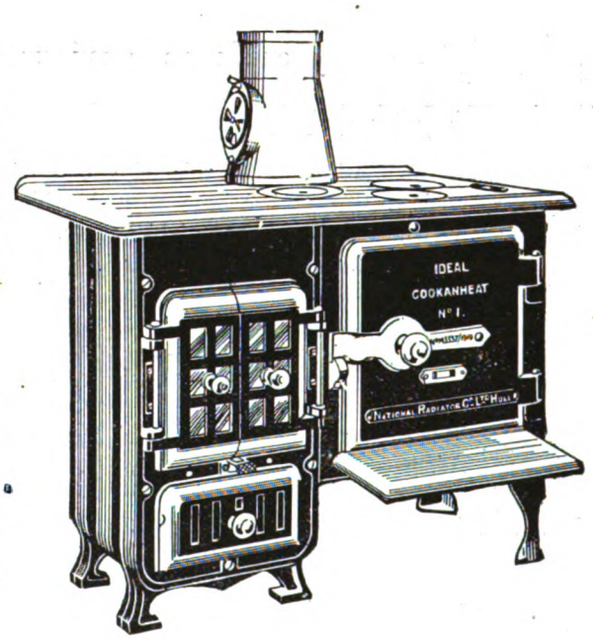
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statue; therefore that statue is Cibber's, and its comparative poverty, when compared with its neighbours, Bushnell's Stuart Kings, in the New Bailey, shows that Cibber's "job" in getting the other Royal statues was not the best thing for English art.

It will now be clear, I trust, that Pierce's statue of Sir Thomas Gresham did not stand in the Royal Exchange, and that of the two that did, Cibber's and not Bushnell's is still to be seen; how good Bushnell's must have been is less evident from the Vertue engraving than from the superb technique and high imaginative qualities of the Charles I. and II., though it seems to have been more soberly treated than most of Bushnell's work.

(To be continued.)

For preceding articles of this series see:—Introductory Article, July 1; Nicholas Stone (1587-1647), July 8; Edward Pierce (ob. 1698), Sept. 2; Caius Gabriel Cibber (1630-1700), Sept. 16; Grinling Gibbons (1648-1721), Sept. 30.

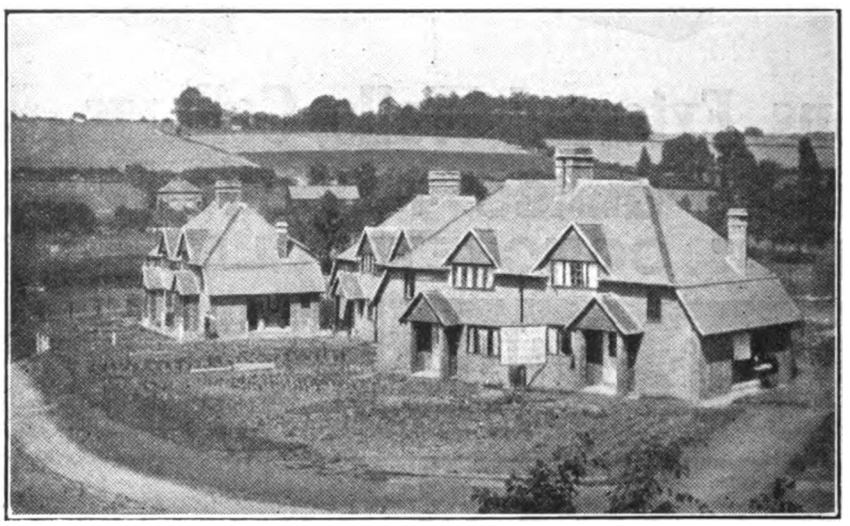
"The Architect" Fifty Years Ago.

October 7, 1871.

Competition for a Church at Strasburg.

The particulars are published of a competition for a building to take the place of the church (the only one) destroyed during the late war. It is to be a Protestant church, to contain at least 2,000 sittings, and the cost, which should include pewing, heating, lighting, and an organ, is not to exceed the sum of 800,000 francs—32,000*l*. The judges will be the President and three members of the consistory, the architects Boeswillwald & Questel, both of Paris, and Professor Semper, architect of the Dresden Theatre. The premiums are 5,000, 2,000 and 1,000 francs respectively, but there are conditions attached which make the participation of English architects undesirable—for their own sakes.

Amersham Housing Scheme.—Houses at Chesham Bois, Bucks.



CHESHAM BOIS HOUSING SCHEME. Messrs. Kemp & How, Architects.

The late Mr. J. W. Garrett-Pegge presented a beautiful site at the foot of Bois Hill to the Amersham Council for purposes of housing. On this site one of the Council's housing schemes has been erected, which we illustrate, and which form a group of 14 houses. It has also enabled a much-needed road improvement to be carried out. Architects and builders have combined to make the group of houses fit into the rural surroundings. The lay out, and the warm tones given by brickwork and tiling, are very pleasing and suitable to the site. Messrs. Kemp & How designed the houses, and had the skiled help of Mr. Edwin East in working out the idea, for his firm (Jesse Mead, Ltd.) carried out the work. The builders erected and completed the fourteen houses between November 8 and July 28, a period of thirty-seven weeks, thus proving that in competent hands delay is avoidable in spite of the difficulties of the times.

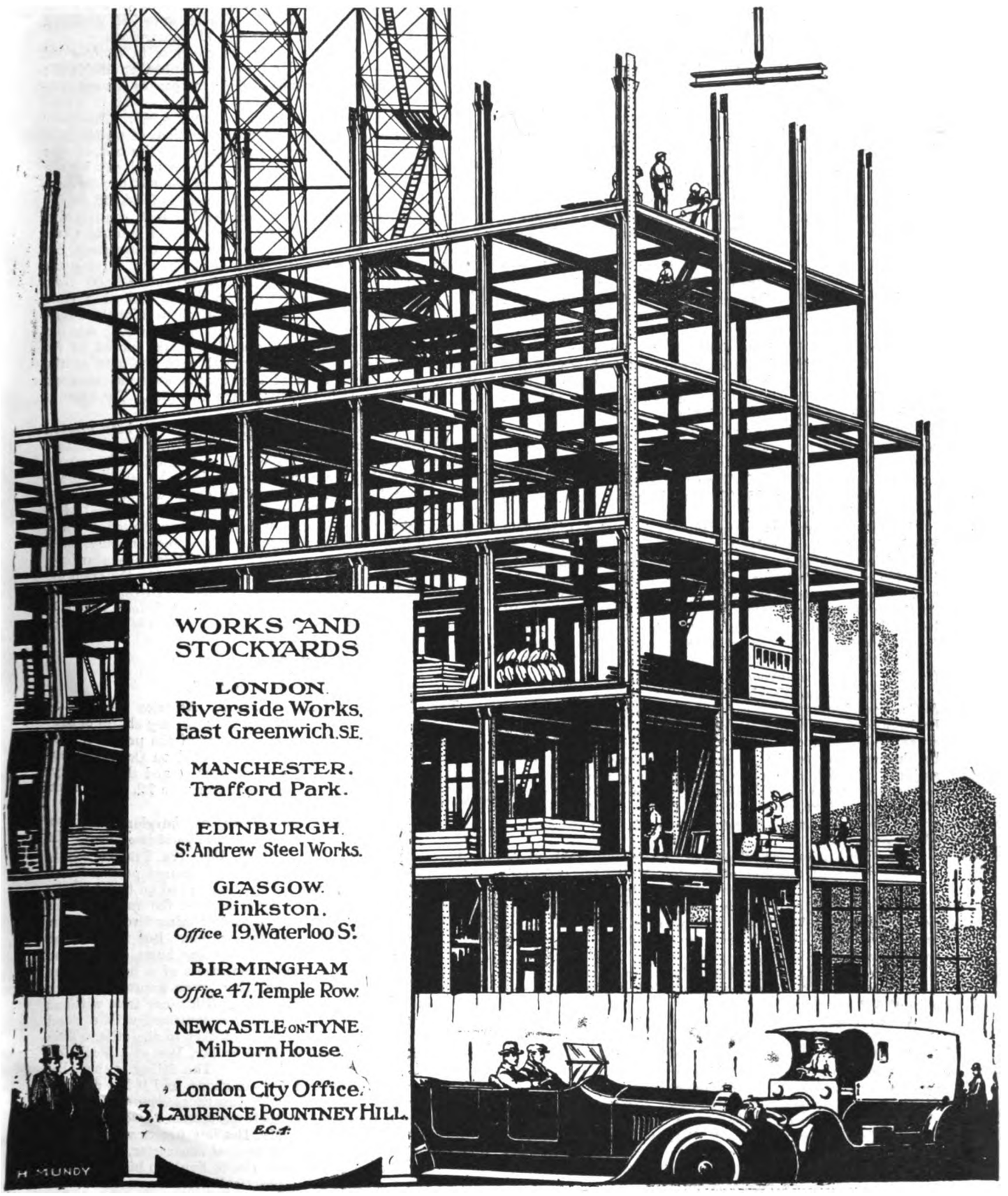
Horse Guards Parade Improvement.

The Committee of the Brigade of Guards' Memorial, of which H.R.H. the Duke of Connaught, K.G., is Chairman, and Lieut.-General Sir Alfred Codrington, K.C.B., K.C.V.O., is Vice-Chairman, will shortly have before them the competitive designs for the Brigade of Guards' Memorial from the sculptors who have been invited to take part in the competition. Sir Thomas Brock, R.A., and Sir Reginald Blomfield, R.A., have been appointed assessors. The site of the Memorial will be provided by an apse to be formed on the west side of the remodelled Horse Guards' Parade, and will have a frontage of 150 feet on to the parade ground. No less than 13½ tons of gunmetal from German guns will be melted down for use in connection with the Memorial, and it is generally felt that on account of its importance and position the Memorial, when erected, will be the finest military one in the country.

Mr. Speaight, in his original design for the Horse Guards' Parade improvements scheme, which he submitted to the Office of Works in 1909, drew attention to the fact that this site—immediately facing the entrance to the Parade from Whitehall—was perhaps the most important one for a monument in the British Empire, and that instead of its present use as a site for a toffee-stall it would form a suitable position for a memorial to the soldiers "who had fought their country's battles." It is a strange fact that until Mr. Speaight drew attention to the suitability of the Horse Guards' Parade being used for military memorials not a single one had been erected there, but since 1909 Viscount Wolseley's memorial has been placed there, and sites also selected for those of Lord Roberts and Earl Kitchener. There is little doubt that in future the parade ground will be used for the site of the memorials of other famous Generals, and that the mistake will not be repeated of again placing such statues in the midst of a busy thoroughfare, as was made with the Duke of Cambridge statue in Whitehall, or of mixing them up with naval ones in Trafalgar Square.

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General.

SIR JOHN SOANE'S MUSEUM is open free on Thursdays and Fridays in October, 10.30 A.M. to 5 P.M., and in November 10.30 A.M. to 4 P.M.

PLANS have been approved for the erection of a cinema at Stainforth, near Doncaster. The architect is Mr. P. A. Hinchliffe, F.R.I.B.A., of Barnsley.

AT their last meeting the Bolsover Urban Council affixed their seal to a contract for the erection of thirty houses in Moorfield Lane at a cost of £21,744 3*s*.

THE Newbury Town Council has received approval from the Ministry of Health for the erection of the last ten non-parlour houses by direct labour, at a limiting figure of £750 per house.

THE Galashiels War Memorial Committee propose to proceed with the scheme of additions to the municipal buildings as designed by Sir Robert Lorimer, A.R.A., A.R.S.A., F.R.I.B.A. The work had been postponed owing to rise in prices. The fund now amounts to over £14,000.

THE work of excavation at the site of the Roman Fort on the Castle Hill, at Scarborough, has ceased for the present season. Distinct traces of the Roman structure have been found, but entirely unexpected and unlooked for remains of the mediæval chapel have also been discovered.

THE Birmingham Education Committee have accepted a tender amounting to £21,964 for the erection of a new school at Pineapple Farm and another tender for a new school at Saltley amounting to £20,793. Both schools will be of a semi-permanent character.

THE London Joint City and Midland Bank, Ltd., are about to establish a branch at Dolgelley, for which plans have been approved. The premises known for over a century as the Angel Commercial Hotel have been acquired for the purpose.

IN order to facilitate building on the area between Granton and Davidson's Mains, a uniform drainage scheme, prepared by the burgh engineer of Edinburgh, has been approved by the Streets and Buildings Committee of Edinburgh Town Council. Detailed plans ordered.

THE Ayrshire Education Authority have agreed to proceed with erecting a semi-permanent building on the former site of Carrick Academy, Maybole (destroyed by fire), at an estimated cost of £9,000. The original scheme for a school to cost something like £30,000 was departed from, at the request of the Department.

MR. R. M. LEONARD, insurance broker, of 5 Lancefield Road, Liverpool, is submitting plans to the licensing authorities for a picture-house proposal to be erected at the junction of Queen's Drive and Cherry Lane, Liverpool, also of a picturedrome to be erected in Longmoor Lane, Liverpool. At the same meeting of the Liverpool Justices approval will be sought for the erection of picture-houses on the site of Nos. 10 to 14A Fraser Street (for Mr. J. O'Hare) and at the junction of Admiral Street and Devonshire Road West (for Mr. R. Duncan-French).

THE "Palestine Weekly" states that Messrs. S. Pearson & Co. have been granted a contract for the construction of harbour works at Haifa, Palestine. The work will involve an expenditure of £10,000,000. This sum is to be advanced by the company to the Palestine Government as a loan, and the contract grants the company in exchange several concessions at the port. The work is expected to be completed within four years. Haifa will become the most important harbour on the Syrian coast and the natural port of Mesopotamia.

THE Institution of Sanitary Engineers held their opening sessional meeting at Caxton Hall, Westminster, S.W., on the 4th inst., when, previous to a musical programme, a reception was held by the Chairman of the Council and Mrs. Whyborn. There was a large attendance, and a thoroughly successful evening was spent. During the interval a short address was given by Mr. P. F. Whyborn, F.I.S.E., A.T.P.I., in which allusion was made to the steady progress of the Institution, which has now a membership of 657.

A BRITISH STANDARD SPECIFICATION has been issued by the British Engineering Standards Association for Creosote for the Preservation of Timber. The specification covers the requirements of creosote suitable for the treatment of railway sleepers, and for telegraph, telephone, and hangar poles, and similar purposes. The clauses of the specification include a description of the substance and limits for specific gravity, fluidity, water content, distillation, tar acids, and matter insoluble in benzol (benzene). These are followed by an addendum governing the supply of Scottish creosote and appendices giving the necessary tests.

Housing News.

FIFTY houses built by the Wood Green (London) Council have cost £1,500 each, including sites, advertising, and road charges. Sanction has now been given for the Council to sell them at £800 on a 99 years' lease at £9 9*s*. ground rent per annum. Although there is consequently a loss of £700 per house, it is pointed out that the deficiency will be made up by the time the leases fall in in 2020.

AT a meeting of the Housing Committee of Edinburgh Town Council last week Mr. Horsburgh Campbell, director of housing, submitted a report for August and September, showing that the total number of houses contracted for was 1,097, of which 1,060 were actually in progress and 334 completed to date. The new houses occupied totalled 96, while 30 were ready for occupation. There were 753 workmen engaged on the various schemes and 71 apprentices.

THE following figures show the progress in *State-aided* housing schemes in Scotland up to September 15, 1921: Permanent houses completed, 2,683; temporary houses completed, 604; reconstructed houses, 67; houses built under the private subsidy schemes, 854—total, 4,208. There are in addition 13,774 houses under construction, of which 2,026 are being built by private persons with the aid of the Government subsidy. The total amount paid out by the Scottish Board of Health in respect of the 854 houses completed under the private subsidy schemes is £206,853 6*s*. 8*d*.

THE Dudley Town Council on the 4th inst. confirmed a recommendation of the Housing and Town Planning Committee to sell the Brewery Fields Estate, comprising 300 houses, erected in the early part of the year. During the current year the Corporation had to provide £1,600 from the rates to meet the deficit on the estate, and at a time like the present it was out of the question to raise the rents. There is considered to be no prospect of them ever making a profit on the scheme. An amendment was moved to the effect that it was unwise to proceed with the sale at the present time, when some of the tenants were out of work and were appealing to the Guardians for relief. The amendment was defeated.

HOUSES to the number of 215 have recently been erected by the Chester-le-Street Rural District Council at Perkinsville, near Pelton. The Pelaw Main Collieries' Co. wrote stating that they were working under the site of these houses, they felt compelled to close down this area of the mine, and that this step would involve the dismissal of a large number of workmen. The Council appointed a Committee to interview the representatives of the company, and, as the result, the company offered £3,000 for the abandonment of the Council's right of compensation in the event of the houses being damaged by subsidence. To consider this offer a special meeting of the Rural District Council was held at Chester-le-Street on Monday last. It was decided to reject the colliery company's offer.

Trade Notes.

THE directors of Bell's United Asbestos Co., Ltd., declared an interim dividend on the ordinary shares of 6*d*. per share, less income tax, on account of the profits of the current year. The dividend will be paid on October 21 to shareholders on the register on October 7, and the ordinary share transfer books will be closed from the 7th to the 21st proximo, both dates inclusive.

WE have recently been shown a "burglarproof door fitting" which appears to be as simple as it is efficient. It is the invention of Mr. Robert Iles, 12A Pimlico Road, S.W. 1, and Fulham. There are two distinct parts. First is a ⅛-inch thick steel plate which is screwed on to the whole length of the door and fits tight against the rabbit. This strip prevents any jimmy or other tool being forced between the door and the post from the outside. But it does not render the door any less liable to being burst open under pressure. Nor does it hinder the egress of a housebreaker who may have got into the building by an unprotected back door or window. But neither from within nor from without can the door be forced if it is also equipped with a dead mortice lock whose bolt fits into a socket in the stile. This lock has four levers and is fitted by Mr. Iles at a height of about 9 inches above the threshold. The fitting is specially recommended for flats and lock-up shops, and it has already done good service. One of the big insurance companies makes a rebate of 5 per cent. on their premiums for clients who have adopted this patent. Mr. Iles is a practical man with considerable experience as a general contractor, decorator, and sanitary engineer (Robert Iles & Son), so his invention can be relied upon as being practical also.

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VOL. CVI.—2757. THE ARCHITECT OCTOBER 21, 1921.

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"The Renaissance of Roman Architecture." *

An architect must necessarily have predilections which to a certain extent control and sway his judgment of phases of style, and Sir Thomas Jackson is no exception to the rule. He approaches the Renaissance with the interest of a scholar, but judges it as a man of varied experience and great knowledge who travels through an enemy's territory. His book is the more interesting because he has too much character and conviction to be governed by the current which has set in in favour of classical forms. To him the finest phases of the Renaissance are those in which the earlier Italian architects of the fifteenth century were clothing mediæval conceptions in scholarly but playful detail, influenced by researches among Roman architecture and Latin literature, but had not cast off their allegiance to the earlier mediæval manner. No one has better described the result of the rediscovery of the classics on architecture so that the forms of mediævalism were dispensed with within the period of a few decades. Sir Thomas says: "In the foregoing pages I have tried briefly to put together the materials for a picture of Italy in the time of the Renaissance; to trace the origin and growth of the revival of classical studies, and of the passion for antiquity which led to that revival of Roman architecture of which it is the purpose of this book to treat." The description given by the author is one of the tersest and most complete we have ever read, and should be of especial value to the student and that section of the general public who wish to acquire an understanding of architecture. More than half the volume is given up to an analysis and description of the earlier works of the Renaissance in the various Italian cities, and it is evident that with its close Sir Thomas feels that the most brilliant epoch of the Renaissance is ended. The direct juxtaposition of arch and column in the earlier works, the use of small columns between window-openings as practised in the Florentine palaces, are forms which have a special appeal to Sir Thomas, while the exquisite detail of the earlier masters is given an ample meed of praise. He says: "The period of this slow recovery was the golden age of the Renaissance. For about a century and a-half the new art was practised with the same freedom as that which had arisen naturally and spontaneously in the Middle Ages. The artist was still free from the fetters of the archæologist though they were gradually being fastened on him; and at last, like free Florence, which lost her liberty to the gradual growth of Medicean despotism, so that the revived classic style of Italy sank into the slavery of convention and pedantry."

We partly sympathise with Sir Thomas's standpoint, but think that his natural bias carries him too far. It is true that the rigid application of the re-discovered system of Vitruvius, interpreted in all probability as it never had been understood by the Roman architects, lead to the production of much commonplace and indifferent design, but there is a vigour and a sureness about the more mature works of the Italian Renaissance which weighs heavily in the balance when compared with much of the earlier work. The same difference is manifest in France between French work of the epoch of François I., or Henri II., and that of Louis XIV. In the first we have much beautiful and interesting detail, often combined uneasily into general conceptions, in the other the use of academic forms, often commonplace in themselves, but merged into completer harmony with the general design. It is difficult to allocate merit, but if we are to consider the Renaissance as a revival of Roman architecture there can be little doubt that the later phases are infinitely nearer to the prototype of Imperial Rome. Roman architecture was the expression of a civilisation which was based on well-recognised conventions, and the same may be said of the matured Renaissance. Our knowledge of later Roman architecture will convince us that there is hardly a form of convention used in the Renaissance which has not its prototype in later Roman work. And whatever the Renaissance was in the lands to the north of the Alps in Italy there is abundant evidence that it was a reversion to a style which had only been temporarily submerged through the effects of barbarian invasion, it has always seemed to us to be in Italy an approach to freedom rather than a sign of servitude.

A concluding sentence in the book is almost that of a latter-day Ruskin: "But the battle, as I have said, is not between Gothic and Classic, for Classic forms have often been used in a Gothic manner, and Gothic forms in the Classic way. The real battle is between the two principles of which these two styles are examples. It may indeed be said that *there are but two styles of architecture, the Bond and the Free*, and we have to choose between them. To the school of freedom the Renaissance in its early stages belonged no less than the preceding style of the Middle Ages. Though Classic details of a kind superseded the Gothic forms they were used with the same ease and liberty. The art was popular, and throve accordingly. In short, it was alive. As time went on, and art became learned, it lost its elasticity, became formal and stereotyped, and so was brought to a standstill. It had passed from nature to convention and from poetry to prose."

The book is interesting throughout, well and clearly written, and whether or not we agree with the author's bias, all will enjoy it. It is well illustrated with selections from Sir Thomas's drawings, and good photographic views.

* "The Renaissance of Roman Architecture." By Sir Thomas Graham Jackson, Bart., R.A. Part I., Italy. Cambridge University Press. 42s. net.

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Illustrations.

SS. MARY AND JOHN, SALTLEY, BIRMINGHAM: EXTERIOR AND INTERIOR VIEWS.
With Plan of proposed Church, Parish Hall and Vicarage. C. H. BIDDULPH-PINCHARD, A.R.I.B.A., Architect.

The designs for this church were made in 1917, but, owing to the war and the difficulty of raising the necessary funds, its erection has been postponed, although it is hoped to commence the work shortly.

The architect's instructions were to design a church without aisles or any obstructing arches or detail which would prevent a view of the three altars from any part of the church, and it will be seen by the prospective of the interior that this object has been achieved.

The whole design has been conceived in the late fifteenth-century and early sixteenth-century style, but the general construction is intended to be in reinforced concrete, with the exception of the vicarage and class-room blocks.

This construction will also apply to the roof of the church.

The concrete beams and moulded concrete construction shown on the ceiling of the church will be painted and decorated after the style of the fifteenth-century roofs in the churches and halls of that date.

The level of the side street, which rises considerably, makes it possible to form the parish room at a considerably lower point than the floor of the church, and the walls of this room form a high rampart on the Allum Rock Road side, thereby considerably enhancing the height and dignity of the whole structure.

The roof of the parish hall, between the class-room block and the vicarage, would form a quiet roof-garden high above the level of the main street, with a cloistered way connecting these two blocks.

The whole scheme is intended to house the services and activities of the church on one site.

C. H. BIDDULPH-PINCHARD, Architect.

Notes and Comments.

The Plasterer and the Collier.

We should all try to learn from experience, and the difficulties which colliers are now meeting should afford food for reflection among plasterers. The collier enjoyed a favoured position during the war, and used his opportunities to the full without any sentimental weakness for the difficulties of others. Rather than have strikes, his wages demands were conceded time after time, and when at last the climax came, and the strike occurred, he succeeded in dealing a staggering blow to the trade of the whole country. Yet Government provided ten million pounds to ease off the inevitable fall in wages. But, now that most people have learnt to use a fraction of the coal they used to buy, that a great deal of the export trade has gone, and factories are working short time, it is probable that the collier doubts the wisdom of his actions.

The plasterer seems to be the *enfant terrible* of the building trades. He restricts the taking of apprentices, and doesn't help us where he can, nearly every building being held up by his entire disregard for the public convenience. We like plaster, as we like coal, but if needs be we can make ourselves more independent of plaster than of coal, and if we are forced to do so the plasterer, like the collier, will find some of his occupation gone. The moral in both cases is the same—that it may sometimes pay, even from a selfish standpoint, to consider the convenience of others.

The Dictates of Penistone.

We do not quite understand why the Penistone Urban Council should—as they are reported to have done—decline to permit tenants of Cubley Garden Village to erect small garages in their gardens. If the motor-car is an aristocratic method of transport and the motor-cycle and side-car is not, it seems hard that the owners or would-be owners of such vehicles should not be permitted to put up accommodation for them. If the objection raised is to the erection of unsightly temporary structures in the wrong positions we can quite understand the point raised, but if not we fail to see it. It may be raised because the garden village is built under the housing scheme of Dr. Addison, and the Council feels that those who have had the advantages of Government help should not be able to indulge in luxuries. In other words, the objection may have been raised to preserve the reputation of wisdom of those who inaugurated the late lamented policy of Dr. Addison; but without fuller information we are somewhat puzzled.

The St. James's Park Huts.

A correspondent of one of our contemporaries writes: "Although it is now nearly three years since the termination of the war, the only temporary buildings which have so far been removed in London are the huts on the Horse Guards Parade and the building erected in the grounds of Lancaster House, and I was informed by the representative of the Office of Works in the House of Commons on August 10 last that there were still in the London area under the control of his Department temporary buildings with an approximate floor-space of one million superficial feet. I trust, therefore, that, in order to provide immediate and useful employment for the unemployed, as well as to secure the final winding up of the Government's war activities, steps may at once be taken to put in hand the demolition of the huts in St. James's Park and elsewhere."

We should be very glad to see the numerous unsightly temporary war structures in and around London done away with, but we do not know how many of them are still used for some purpose or other. We continually hear statements that when one department is pruned of its war-time strength another receives an accession to its numbers, so that the total is little affected. If this is so, we can only satisfy ourselves that the authorities are economising by considering the individual figures they obligingly give us from time to time, and their intention may be to remove temporary buildings only at such time as the Office of Works or some other Government Department has erected permanent ones. The public are becoming suspicious that we shall get effective economy by the time of the Greek Calends or some such elusive date.

Builders' Merchants.

Messrs. Dibden & Sons, who are said to be one of the largest firms of builders' merchants in the South of England write to the "Daily News" stating that, "As one of the largest firms of builders' merchants in the south, we are convinced that the necessary drop in prices will only come when the combines which you are so ably attacking have to face increasingly strong opposition and free competition between manufacturers and merchants."

They go on to describe the methods by which the ring which controls the prices of builders' materials work:

"Several builders, joiners, plumbers, and other dealers have also written giving particulars of the manner in

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which they have been penalised and boycotted by the ring.

The methods are various.

If a builder or merchant takes a smaller profit than that fixed by the ring, supplies are cut off entirely.

This, in the case of a local man, is a serious matter, and has meant to many small builders ruin or capitulation.

In one case, where a contractor sent in an estimate to a local authority which was lower than the "official" ring estimate, he was compelled to withdraw it, and, faced with the stoppage of all supplies of material, was forced to sign an agreement, as a punishment, not to supply any public body for a period of three years!

The secret rebates, mentioned yesterday, give the ring another strong hold on their members.

These rebates are paid quarterly in arrears. They amount to a considerable sum, and merchants frequently have hundreds of pounds standing to their credit with the ring.

If, in any way, they attempt to lower prices, or give the public the advantage of the falling market, this accumulated money is forfeit! That is the principle behind the ring; that is why building material prices refuse to fall."

If the statements here made can be substantiated, there is a strong case for interference now that there seems to be a general disinclination to undertake the responsibilities of building on account of its high price, especially as the cost of labour has already been substantially decreased.

Our Prices of Materials.

Several of our subscribers have pointed out to us that a list of prices of materials, apart from labour, would be a useful addition to the information we have been giving of building prices in the London district. We have accordingly given a full page containing the information asked for, which has been arranged alphabetically for the sake of convenience, and will, we hope, prove for this and other reasons to be more convenient than similar information given elsewhere. It is quite possible, now that we have incorporated this information, that we shall find other journals proving the truth of the adage that "imitation is the sincerest form of flattery," as has been already proved by the action of at least one of our contemporaries, which adopted a similar feature to our own some time after we had given it. We do not suggest that they even saw a copy of this journal, or that the singular coincidence was anything else but the result of independent research into the wants of the building trade!

The Society of Architects.

Officers and New Members of the Council for the year 1921-22, elected October 13, 1921:—

President.—Sir Chas. T. Ruthen, O.B.E. (Swansea).

Vice-Presidents.—George H. Paine (London); Major C. F. Skipper (Cambridge); A. J. Taylor (Bath); Thomas Wallis (London).

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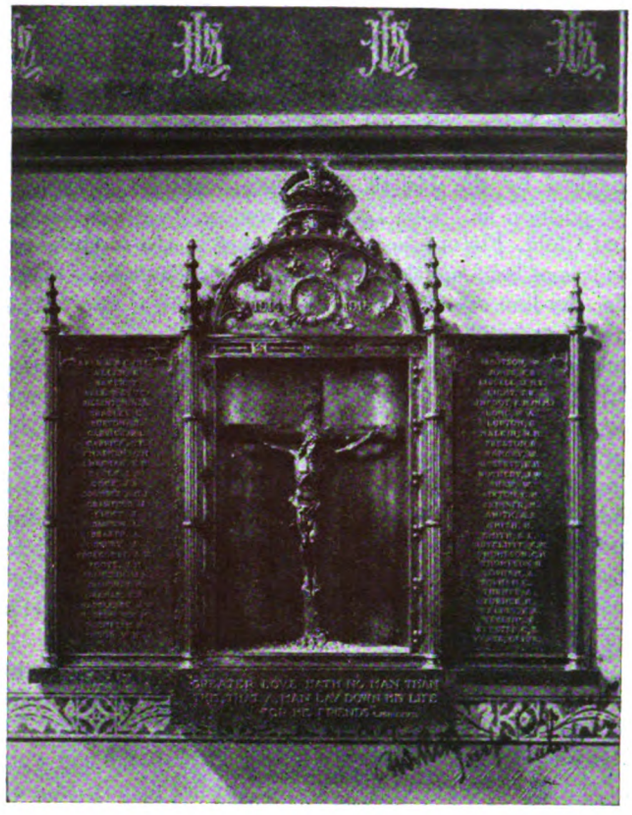
Members of Council:—London. (a) Fellows.—Ellis Marsland, J. Herbert Pearson, Henry Tanner. (b) Members.—F. G. M. Chancellor, H. M. Robertson. Country. (a) Fellows.—G. C. Vernon-Inkpen (Portsmouth). (b) Members.—John Knight (Manchester).

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Designs by Sir Reginald Blomfield have been approved for the Royal Air Force memorial at Whitehall Stairs, Thames Embankment.

Mr. Edward Goldie, F.R.I.B.A., of 31 Upper Phillimore Place, Kensington, W., died on the 10th inst. at the Val Riant, St. Servan, France, aged 66.

A Harrogate Church War Memorial.



The Lord-Lieutenant of the West Riding, Lord Harewood, K.C.V.O., unveiled on October 5 the bronze memorial tablet which has been erected on the west wall of St. Peter's Church, Harrogate. This memorial, as will be seen from our illustration, is in the form of a triptych. It stands about six feet by six feet, and has been executed in bronzed bronze metal by Joseph Kaye & Sons, Ltd., London and Leeds, from the design of Mr. A. Willetts, the artist. The centre panel is curved to form a niche for the crucifix, while the lunette above is outlined in cuspings, and a wreath flanked by "1914 and 1918" in the centre, the whole being surmounted by the Royal Crown. On the side-panels are the names of the men of the parish who made "the supreme sacrifice." The dedication service was conducted by the Suffragan Lord Bishop of Knaresborough, who also dedicated four memorial windows.

King's College School War Memorial and Memorial Library.

On Friday last, October 14, the War Memorial at King's College School, Wimbledon Common, S.W., was unveiled by Sir Cecil Hertslet, in the presence of a large and representative gathering. The Memorial consists of a Portland stone pedestal, Greek in character, upon which are inscribed within five panels the names of the 160 Old Boys who fell in the War. It is surmounted by a bronze figure of a youth, holding aloft a wreath symbolising the aspiration of Youth. The figure was modelled by Mr. Charles L. Hartwell, A.R.A., and the execution of the Memorial was entrusted to Messrs. Blundell Shepherd & Monks, of Hampstead.

On the same day the Memorial Library was opened by Sir Sydney Russell-Wells, Vice-Chancellor of the University of London. A scheme of panelling on the plaster walls, with oak bookcases, has been carried out by Messrs. J. Burges & Sons, contractors, of Wimbledon, the modelled plaster enrichments and gilding are the work of Messrs. G. Jackson & Son, Ltd. A feature of the library is a beautiful water-colour by Mr. Herbert J. Finn, which supplies the focal point over the chimneypiece. The Memorial and the Library were both designed by Mr. Arthur Stratton, F.S.A., F.R.I.B.A., the architect of the school and an Old Boy.

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London Art Galleries.

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The Royal Institute of Oil Painters opened on October 14 its usual autumn exhibition, on lines which do not strike any differing note from those of previous years. Among the 375 oil paintings here being shown, there are not a large number which call for speciall comment. Mr. E. R. Frampton, in his paintings of this year, is obviously inspired by the Italian Primitives, notably in such a composition as "Our Lady of Promise," with its Virgin and Child, Florentine in type, seated in the foreground, its line of baby angels, suggestive of the Umbrians, along the sky-line, its white Gothic tower at the side. The work is careful, and has a certain merit, but is, after all, only an echo of what was done with real inspiration in the fifteenth century in Florence or Siena; while the nude figure of a girl in "A Cumberland Idyll" looks like an early painting of that really individual master, Burne-Jones. Far better than this in figure work is Alfred Palmer's "The Pool" on the same wall, a very brilliant little study, loosely handled, with good colour; while Lee Hankey's "The Mirror" is a clever study, careful and correct in drawing, and Bernard Hall shows a girl's figure reflected in the glass.

But far the most important and successful figure painting here is that contributed by the Vice-President of this Royal Institute of Oil Painters, Mr. W. B. E. Ranken, R.I., which occupies the centre of the end wall in the South Gallery, with the somewhat prosaic title of "Woman doing her Hair." For this is a queenly being who sits upright, busied with the long plaits of her red-gold hair; and a sculptor would appreciate the fine sense of line sweeping up from her thighs to her extended left arm, and continued even in the drapery and the rich coils of her hair. The figure is half in shadow, and the lighting effective: the drawing correct and bold, the pose easy and sculpturesque. It is worth while to compare this figure with that by G. Spencer Watson under the title of "Study from the Nude" at the other end of the South Gallery. The pose here is very similar, and the painting quite sound,—but it lacks the vigour, the splendid sweep of line of Mr. Ranken's lovely blonde.

The flower-painting in this exhibition reaches a good level in such studies as Alfonso Toft's "Flower Study," H. Davis Richter's "Blue Dog"—an effective grouping of blue china with hydrangeas,—and Anna Airy's "L'Heûre exquise," a table set with glasses and pale yellow roses, brilliantly handled. Figure work appears in Isaac Cohen's "Pursuit"—the head of a girl beside the mask of a Faun, which she curiously resembles,—and W. E. Webster's "Serenade," which has what the Germans call "Stimmung" in the girl listening to the music without, and in the Hon. John Collier's "Poseuse": landscape and seascape in Arthur Burgess ("Scapa Flow"), John E. Mace ("Blackfriars Corner"), Julius Olsson, and Graham Petrie's "Lago di Como," seen from beneath the trees near the Villa Carlotta. But in imaginative landscape Tom Robertson is unexcelled; his "September Morn" is a poem of colour—the quiet river, the church tower and trees all bathed in diffused purple light, fused into one harmony; his "Moonlight Dwelling" is one of those nocturnes in which this artist excels, but this poetic quality drawn out of nature is attained technically by most careful preparation, by painting and repainting to get this wonderful atmospheric effect.

The Leicester Galleries never fail to give us something that is stimulating and interesting: even when we do not agree we are never "ennuyés." This month, after the Italian sculptor Riccardi and the inimitable Max, we have before us two very attractive displays. Mr. Nevinson's art, which fills the inner room, seems to me astonishingly clever, and no less surprisingly unequal. His "Preface" to this catalogue amounts to a defiance of existing formulæ, an assertion of flaming personality . . "Again I wish thoroughly to disassociate myself from all the modern movements, 'neo,' 'post,' 'ism,' or 'ist.' . . . I hope my pictures make it clear that I paint what I love, how I like, for the joy of painting, a motive rarely suspected in modern artists." To such an admirable sentiment one feels disposed to apply the words of the Roman censor—"Macte virtute esto!"—and looking round the walls that impression is only heightened. There are some extraordinarily clever pieces here—"Hyde Park," a lovely bit of decorative colour; "Hampton Court"; two heads of girls called "Maidenhead"; "A Cornish Landscape," with its wonderful sense of driving wind and storm; "An English Landscape," painted with the solidity and reserve of, shall we say, Hughes Stanton; and the delightful "Pont Royal" among the water colours; and there are some extremely poor studies, among which I should incline to place "La Corniche." The impression left is that this brilliant young artist is still seeking his own path: he can find no better guide thither than that of sincere self-expression.

On the other hand, Eric Kennington's "Arab Portraits," in the next room, are complete in themselves and entirely satisfying. Apart from the strong drawing of these pastel heads, what impresses itself upon us is their absolute truth to type. We feel here that "East is East and West is West"—racially, emotionally, for ever divided; and we feel this not alone among the Arabs, these men of the desert and sun such as Auda abu Tayi, Sindah el Sikeini, Sherif Shakir, or even Mohammad Hussein of Baghdad, who looks to me more of the Oriental trader, but also in such strong English types as those of Field-Marshal Allenby, Major-General Ironside, and Colonel T. E. Lawrence, to whose pen is due the admirable little "foreword" to this exhibition. But, above all, we feel before these portraits that these desert men are born fighters, only to be held by unswerving justice and unyielding strength: the politician who could parley over hair-splitting terms with his opponent's knife at his throat would have no place in their simpler code, and probably a very short shrift. These "Arab Portraits" are not things to be missed.

I come lastly to the Fine Art Society, in New Bond Street, where Mr. Julius Olsson, President of the Royal Institute of Oil Painters, has a very interesting display of his seascapes. This artist loves the effect of light on the broken surface of the waves, and gets this to perfection in such paintings as "Sunlight Glitter," as "The Twilight Moon," and "Silver Moonlight," while in "Afternoon, Newquay," and "Afternoon, St. Ives," he gives us the waves surging up against the Cornish rocks. Or, again, he will give us the sunlight on smoother seas in such scenes as "From the Beach, Mullion," or "Summer Day, Poldhu"; but his art seems compressed within these two forms of outlook, and, in fact, the two paintings just mentioned are almost identical in colour and to a great extent in subject. In the inner room here James Clark, R.I., has some charming water colours of Montreuil-sur-mer and Italy, with good drawing throughout of buildings and good colour but varying interest. Most successful are the studies which deal with Florence ("Palazzo Vecchio at Midnight") San Gimignano, that lovely Tuscan city of the towers, Venice, and Montreuil-sur-mer. A brilliant little study, recalling to us Harry Watson's art at his best, is "Tree Shadows."

Other exhibitions, which I am regretfully compelled to leave for later notice, are those of Mr. William A. Gibson's oil paintings at Messrs. Connell & Sons Galleries, in Old Bond Street; of Mr. Gordon Coutts, a New South Wales painter, at the Grieves Gallery; of the Ridley Art Club, at the Suffolk Street Galleries; of Alexander Walker, at the Twenty-One Gallery; and of the Old Dudley Art Society, in Mill Street, Conduit Street, W. The twenty-eighth annual exhibition of the Surrey Art Circle opens this week at the Greatorex Galleries.

S. B.

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Studies of the English Sculptors from Pierce to Chantrey.

VII.—Francis Bird (1667-1731).

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BUST OF THE EARL OF GODOLPHIN, WESTMINSTER ABBEY. By Francis Bird.

With Francis Bird, a man of purely English descent, we are again in the full tide of Renaissance tradition, although in certain cases his work shows signs of English influence. Nothing is known of his parentage, but he told Vertue that he was born "in the parish of St. James's, Westminster, anno. 1667," and that at eleven years of age he was sent to Brussels, "where he had his first instruction in the statuary art under Cozins, a statuary who had been in England." He "learnt till he was about twenty-two years of age" [Vertue says elsewhere nineteen], then returned to England "and worked for Mr. Gibbons some years, and for Cibert (Cibber)." "After some years being employed he went to Italy, and there wrought under the direction of Monsieur le Gros, a famous Roman statuary." Vertue leaves a blank for the number of years he stayed there, but adds, "when he returned he could hardly speak English," so that the stay must have been of some duration. It was probably after this visit, which he "performed on foot alone," that he was introduced to Wren, by Gibbons perhaps, and was associated with him in his work at Christ Church, Oxford, and afterwards at St. Paul's. His second visit to Rome was also made mostly on foot, in the company of "a young man that workt with him," but his stay this time was only for nine months, and he returned to England about 1700, when "the first piece of work wherein he distinguished himself was the figure of King Henry the Eighth [? at Christ Church] and the statue of Dr. Busby on his monument in Westminster Abbey in 1703."

At this point it may be convenient to leave Bird's life and works to consider what we know of the art training which had made him famous.

Of Cozins we know absolutely nothing, but Pierre le Gros (1666-1719) is responsible for much of the work of the later Berninesque School in Rome. He made his mark very early—as we have seen, Bird, his junior by only one year, was glad to work under him—and executed the sculpture in the Jesuit Church of S. Ignazio, the tomb of Pope Gregory V. in the same building, two of the colossal statues of saints in the Lateran, and much other work of the same character. It is not surprising, therefore, that, trained under such a master, Bird should have acquired Nicholas Stone's terracotta version of Bernini's Apollo and Daphne; and that he did not neglect the antique is clear not only from his also possessing Stone's copy of the Laocoon, but from the fact that his own copy of the famous Faun was afterwards at Strawberry Hill. His work under Gibbons and Gibber brought him into contact with the English art of the period, and it was thus with a remarkably all-round training that he entered on his independent career as an artist.

His famous monument to Dr. Busby, who died in 1695, represents him as reclining on a sort of altar tomb, the front of which is adorned with books open and closed, holding a pen and MS. volume and looking upwards towards the stately epitaph recording his virtues and the lifelike character of his effigy, which is the more remarkable that Bird had only a death mask to work from, as Busby would never have his portrait taken. The monument is one of the best works of its generation, and it is the more impressive that its successor, the monument to Sir Cloudesley Shovel (*ob.* 1707) close by—a commission from Queen Anne herself—was a glaring failure. Walpole said that it "made men of taste dread such honours"; Addison indicted it in a famous passage in the "Spectator"; Pope satirized it in memorable verses; and the D.N.B. justly describes it as one of the worst works in the world. More effective, and much more admired by contemporaries, is the grandiose monument to John Holles, Duke of Newcastle, uncle of George II.'s Prime Minister, after Kent, with its rare and curious coloured marbles, attributed by Dallaway to Rysbrack; but Bird's fourth work in the Abbey is altogether better. This is a bust of Lord Godolphin (*ob.* 1712) in the south aisle, a fine thing in itself, and of interest as one of the few surviving examples of Bird's busts. The form, a half-figure on a semi-circular pedestal, was a favourite with Bernini, and through him of the French sculptors of the reign of Louis XIV., and is a striking contrast to the typically English Busby of ten years earlier.

The bronze Henry VI. at Eton is a poor thing, but apparently the only example of Bird's work in that medium; his statue of Cardinal Wolsey at Christ Church (Vertue's MSS. speak of other works in that college which I am unable to identify) is also a moderate work—Bird's patron Wren, it will be remembered, completed "Tom" Tower on which it stands, in 1682—but both have the interest of being early examples of antiquarian sculpture. The other works in Westminster Abbey ascribed to Bird, the monuments to Congreve, Killigrew, Dean Sprat, Shadwell, and J. E. Grabe, must be mentioned for the sake of completeness. The first is a good portrait in relief, a half-figure in a medallion resting on a marble sarcophagus adorned with drapery, masks, and books; the second, if his, must be an early work, since Killigrew died in 1683; the third was erected by Dr. Mead in honour of his life-long friend; the fourth is a poor cenotaph with a bust in Poets' Corner; and the fifth a dignified monument erected by Harley to a distinguished Prussian Orientalist who was ordained into the English Church, and is represented in his robes as a divine.

Much more interesting are the elaborate monuments at Luffwick or Lowick, Northants, one of which is thus described by Bridges. "On a tomb of grey marble covered with a black marble slab is the figure of a woman neatly cut in white marble, reposing her head on her right arm." This is the Lady Mary Mordaunt, Baroness of Turvey, and daughter to Henry, Earl of Peterborough. She married first the Duke of Norfolk, then Sir Thomas Germaine, who after her death married Lady Elizabeth Berkeley. Lady Mary (*ob.* 1705) erected this

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monument herself; her husband appears in armour and a periwig with their three children, who died in infancy, on another tomb beside her. Both are attributed to Bird in the "Victoria County History" (Northants, Vol. I., p. 422), but the work is far more noteworthy than the writer there allows.

Before we come to the last of the sepulchral monuments in which Bird is said to have had a hand, we must turn to his work at St. Paul's. How he originally secured the patronage of Wren is uncertain, but the fact remains that he carved the figures of the apostles on the roof (those above the S. pediment being now replaced by modern copies), the colossal figures of the Evangelists more than twice the size of life, and the pedimental sculptures. Walpole is very contemptuous of these works, but in spite of the weathering the student will recognise in the figures echoes of the colossal saints by Bernini and his school at Rome, and in the spirited horses of the pedimental group representing the Conversion of St. Paul a far-off echo of Bernini's Constantine at St. Peter's. Contemporary opinion was much more enthusiastic, to judge from "The Cupola, a Poem occasioned by the Vote of the House of Commons for covering that of St. Paul's with British copper," a work of 1708, which the writer unearthed from a miscellaneous volume of tracts at the British Museum.

> Whether the learn'd Apostle preaching stood,
> To teach *Ephesians* truths himself pursu'd;
> Or—from his Horse, all prostrate on the ground,
> Heard with amazement, the converting sound. . . .
> While e'en the Beast, on which he rid, confess'd
> A Sense of Honor, not to be express'd.
> So *Phidias*, with inimitable Art,
> Motion to lifeless Figures could impart;
> And so *Praxiteles* his skill convey'd
> Speech almost to the Statues which he made.

The statue of Queen Anne outside St. Paul's (the main figure replaced by a modern replica in 1886) met with nothing but abuse from contemporary poets, but something of Berninesque tradition lingers in the four allegorical figures grouped at its base. These are now better studied from engravings, and are variously described by Vertue as Great Britain, France, Ireland, and America, or the Four Continents, but they gave a certain dignity to the whole, and one bears a grudge against the Cockneys who so mutilated the original as to necessitate its removal.

With regard to the remaining work ascribed to Bird by Walpole, "a magnificent monument in Fulham Church for the Lord Viscount Mordaunt," it is regrettable to have to say that none of the subsequent writers on Bird seem to have made an attempt to see the not very remote original. Had they do so, they would, like the writer, have been pulled up at once by the date on the monument, 1675, in which year Bird was only eight years old. Walpole's specific statement that "Bird received £250 for his part of the work" seems to carry conviction, but the impossibility of Bird having any share in a monument erected in 1675 sent the writer to Vertue's original MSS. to see what had happened. There is no mention whatever of Bird in connection with Fulham, and it becomes clear that Walpole somehow mixed his notes and ascribed the work and the pay to Bird which in Vertue's notes are correctly credited to the far less known John Bushnell. What is really surprising is that generations of writers have gone on repeating his mistake without any reference to the monument itself, though for Bird's own sake one may well wish he had had the share in it with which he has been credited. Bird's, beyond a doubt, is, however, the singular monument to George, Earl of Huntingdon at Ashby-de-la-Zouche, of which Vertue says: "A curious Mont of white marble columns [?] with Cupids trophys the figure of Envy carvd by that great artist Mr. F. Bird.

Ob. A.C. 1704, aet. 26."

This monument is not mentioned by Walpole or any later authority, nor has the present writer seen it; others must exist, since Vertue speaks of "many others in Churches throughout the Kingdom," some of which, it is hoped, this paper may bring to light. Nor does the writer know anything of the "noble, fine, large model in clay or terracotta" which Vertue saw "at Delmee's Esqr. in Grosvenor Square," the subject of which Vertue does not even mention.



MONUMENT TO DR. BUSBY IN WESTMINSTER ABBEY.
By Francis Bird.

All through this paper the statements in inverted commas are taken from Vertue's MSS., and may serve to show the desirability of collating Walpole's statements with the documents from which they were avowedly compiled. Bird was a personal friend of Vertue's, and in March 1728 told him many particulars of his life, here for the first time printed, so that Vertue's authority is overwhelming. His vivid description of the sculptor who "1729 in the Christmas holidays at night coming out of a Tavern in the neighbourhood where he livd in a frosty weather, slipt down [and] broke his leg which was afterwards ill sett which occasiond a long illness and confinement: when he grew better he always afterwards walkd with a crookt stick but lamely"—seems to bring us into touch with the old sculptor and the compassionate antiquary.

Bird, in fact, is a very interesting transitional figure, as his training under Cozins and le Gros, Wren and Gibbons would lead us to expect. Now we find him working in the monumental English tradition, now in the Berninesque manner fostered by his Roman visits. Now he is outrageously bad, now really fine; but always he is a far more interesting figure than it is the fashion to allow, and the "daily newspaper" cited by Vertue which described his death by dropsy in 1731 was not so far out as most people think in describing him as "the most famous Statuary that this Nation ever had, as the many lofty Tombs and Magnificent Monuments in Westminster Abbey do testifye."

(To be continued.)

For preceding articles of this series see:—Introductory Article, July 1; Nicholas Stone (1587-1647), July 8; Edward Pierce (ob. 1698), Sept. 2; Caius Gabriel Cibber (1630-1700), Sept. 16; Grinling Gibbons (1648-1721), Sept. 30; John Bushnell (d. 1701), Oct. 7.

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Church Architecture and Organs.—I.*

By Sir Charles Nicholson, Bart., M.A., F.R.I.B.A.

The duty of the musician is to make a noise in the world; the architect, on the other hand, does his best work in solitude and silence. It is an inversion of the usual order of things that the architect should do the talking and that the organists should be the listeners. In fact, one is reminded on an occasion like the present of the old story of the prophet's conversation with the patient and faithful creature who had for so many years ministered to his necessities.

For organists, with the exception of the perambulating fraternity who hail from the sunny shores of Clerkenwell, require cathedrals, churches, chapels, halls, and what not in order to house the instruments wherewith they discourse sweet music, and the business of the architect is to supply these accessories of the musician's art; therefore it is not unseemly that for once in a way the mouth of the architect and the ears of the musician should be opened.

Our respective arts have much in common with each other, more especially in the fact that very few organists and very few architects have the opportunity in this world of carrying out their best ideals.

In the first place, both classes of artist are up against the solid, almost impenetrable, wall of British public opinion. The artist, if he is fortunate, may find loopholes in the wall through which he may creep in order to satisfy his own aspirations, but to destroy the wall itself would create such a terrible mess in the world that it would be undesirable, as well as impossible.

Again, neither your art nor music can ever be purely a one-man show. The organist, especially if he is also a choirmaster, has to use human tools in the performance of his task; so, of course, has the architect. And in few cases is the artist entirely free to select his own agents. The choirmaster who is afflicted with a tenor singer possessing great social importance and limited technical skill will doubtless sympathise with the architect whose lot it is to employ a colour-blind painter or a carver imbued with the traditions of a second-rate school of arts and crafts.

Then, again, your art and mine both involve the spending of money, though in this matter you have an advantage over us, since simple music well performed is an end well worthy of attainment. So too, of course, is a simple piece of architecture; but, unfortunately, an architect is often called upon to provide a large quantity of accommodation and fittings of the most up-to-date character for an impossibly small sum of money, and is at his wits' end how to do it. Can we wonder, then, if the result of his labours is reminiscent of an oratorio performed by a village choir?

It may be a source of gratification to you that I can assure you that your efforts to realise your own artistic ideals are more generally appreciated by the British public than are the corresponding ambitions of my own profession. Possibly the British public considers musicians to be lamb-like creatures who are willing to work for nothing; architects, on the other hand, they regard as a cross between the crank and the profiteer, applying to that harmless and amiable class of men the famous epigram, "and that is why your income tax is 6*s.* in the pound." To illustrate this point, a certain architect was called on to build a church in the North of England. At his first interview with the committee he was asked to describe his ideas for the projected church, which he did in appropriate and picturesque language. "Ah well," said the churchwarden, "we don't care nowt about that, but what we want is a good *snug* church wi' a good heating apparatus, an' comfortable pews to sit in, an' ay a good oorgan, an' a nice choir to sing to us." If popular appreciation is a good thing the organist certainly gets more of it than the architect, but the real pull you have over us is the opportunities you have for studying and rehearsing your work before you give it to the public. An architect has no such opportunity; he has generally to carry through a given piece of work in a given time. Moreover, when once a thing has been built he can't alter and correct it if it doesn't turn out as well as he expected it would. A musician can correct his own mistakes, a doctor can bury his, but an architect's stare him reproachfully in the face until Father Time comes by with his scythe and puts him out of his misery. The critics who criticise the modern architects' lack of originality must have overlooked this essential condition to which his work is subjected. To be for ever restlessly trying experiments in architecture would be a very risky process. Even a genius like Sir Christopher Wren was by no means always successful in his architectural compositions, though his masterpieces are so splendid that we may well be thankful that the unrivalled opportunities which he enjoyed were given to an artist of such fertile invention. Wren, it is generally admitted, was the most truly original architect of modern times, yet even he did not attempt to create a new style of architecture with novel details; he was content to use the ordinary architectural detail of his period—classical columns, oak panelling, stucco ceilings, and so forth—very much the same as other architects of his generation. His originality is shown in the novel arrangements of his interiors and in the artistic grouping of ordinary columns, cornices, domes, and spires in his church steeples.

His art may be compared to that of a genius performing upon a good organ; the instrument remains the same, whether a master or a dolt is at the keyboard. Wren was the master, and knew better than anyone of his time how to make the best use of the materials and opportunities at his disposal.

Before and after Wren's day there have been great master builders whose work shows originality in the same sense that Wren's work does. Such were the nameless architects who conceived the ideas of the west front of Peterborough Cathedral, the octagon at Ely, the quire of Gloucester, and Henry VII. Chapel at Westminster. Such also were Vanbrugh and Hawksmoor, pupils of Wren; and it is possible that the verdict of a future generation may be that the divine spark existed in the work of Pugin and Butterfield.

But most of us have neither the knowledge nor the genius nor the opportunity to create great original masterpieces. Unhappily, we most of us feel that, however true this may be with regard to brother-architects, there is always one exception to the rule—the result of such egotism is seen in various freak buildings which adorn this distressful country.

I leave it to you, gentlemen, to judge whether or not with regard to the great question of originality a parallel exists between the arts of the musician and the architect.

To turn from philosophy to more practical matters: I do not expect you will all agree with the views of those who hold that most of our church organs are too large. Statements of a general and sweeping nature like this cannot be argued out in a logical manner, and it is not altogether fair to make them. It will, however, be admitted generally that in building a new church or putting an organ into an existing one the special musical requirements of the place and the seemly arrangement of the church as a church ought both to receive most careful consideration. Any solution of the problem which ignores either aspect of the case must be a failure. Unfortunately, there have been many occasions of such failure of co-operation on the part of organists, organ builders, and architects. It is only right, however, that I should do organ builders a justice to say that most of them are willing to co-operate with the architect when there happens to be one at work on the church at the same time as themselves. The worst mistakes are made when an organ builder is called upon to put a new instrument into an existing church, and where no architect is on the spot to watch over the general interests of the fabric.

* A Paper read at the London Congress of the National Union of Organists' Associations.

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Our churches have suffered very much architecturally from misguided, but well-intended, additions made by heating engineers, electric-lighting firms, stained-glass window makers, church-furnishing firms, and—last but not least—organ builders.

Many blunders and much disappointment would have been avoided in many of these cases had the services of a competent architect been made use of when these accessories were put in hand. The architectural result, when a church has been treated in the manner to which I have alluded, is comparable to the music which would be produced by an orchestra in which each instrument was tuned to a different pitch.

We are very apt in these days to follow the lead of our next-door neighbour, without much consideration as to whether our own circumstances are the same as his. Such a course can never lead to the best artistic results, either in music or in the other arts of the Church; artistic merit can only be attained by careful study of the special problem to be solved.

A church organ may be looked at from two points of view—first, as an instrument for solo playing; secondly, as one for purposes of accompaniment only. The latter is, of course, the primary purpose of most church organs, though generally an attempt is made, often without real justification, to provide an instrument capable of being used for both these purposes in a building quite unsuited to contain so ambitious an organ, and in a place where solo playing is not likely to be performed at all frequently. Moreover, in many such cases an attempt has been made to provide a large showy instrument at a low cost, the result being that the church is saddled with a ridiculous white elephant, detrimental both to the architecture of the building and to the quality of the music performed in it.

It will be understood that I speak entirely and absolutely as the man in the street so far as technical musical questions are concerned, I ask you, an audience of musical experts, to take what I have to say with indulgence so far as it touches the branch of art which you practise. I can only claim a modest degree of experience in the sister art which comes in touch with your own when one is considering the placing of organs in churches.

As the man in the street I sometimes feel inclined to wonder whether a good many churches would not be much better off without any organs at all. The Greek Church, I believe, forbids the use of instrumental music entirely, and I have been told that Russian Church music nevertheless occupies a very high place in the estimation of experts.

Again as the man in the street, I have been at times privileged to hear a fair amount of unaccompanied church music, both in harmony and in unison, the effect of which has struck me as by no means unimpressive.

Then, if one doesn't like to take hints from Russian Church music because it savours of Bolshevism, one can turn to other parts of the European Continent, and one finds that in many churches they do very well without an organ. Or we can take a hint from the Salvation Army, which has adopted a style of music not altogether unsuitable for an unpretending village service. The Salvationists, of course, go in for a brass band which often in itself seems to me, again as a man in the street, horrid, but they have the sense to alternate their vocal and instrumental music in a way which seems to have decided advantages from the point of view of effectiveness.

One has the same idea, of course, in the manner of performance of a good deal of the church music in France, where alternate verses or sentences of the liturgical music are replaced by solo organ passages. This last, I believe, must be a corruption of an older system which survives in many parts of France of antiphonal singing between choir and people; the organ passages, of course, replace the people's part of the service.

The present question, however, is not whether organs are desirable or not in church, but how they are best to be arranged if they are wanted. Difficulties arise in the case of almost every ancient church, but they can, as a rule be overcome in good-sized buildings, granted a little mutual forbearance between musicians and architects. When one comes, however, to the smallest class of village churches where there is really no room for an organ at all, except, perhaps, one of the so-called positive organs, which I understand are to most musical authorities anathema. One could wish that some sort of instrument were invented that would fit into such buildings without disfiguring them, and yet would be less disagreeable to listen to than a harmonium or American organ droning out its dismal background to the singing, or panting forth voluntaries to an accompaniment of creaking foot-bellows.

I have on a few occasions heard services of some pretension accompanied upon a piano and an American organ tuned together, and the effect seemed to me by no means bad. I often have thought that if a two-manual instrument could be constructed, one manual operating a set of piano strings and the other a set of reeds or organ pipes, it would go a long way towards solving some of the difficulties of providing a satisfactory accompanying instrument in a small church, or for that matter possibly in a large one. Of course, the difficulty of keeping the two manuals in tune with each other might be so great as to make the idea unworkable. If any of you gentlemen, however, will try and invent some such instrument I, for my part, will try to build a church to put it into, which is, you will admit, a sporting offer.

Organs are mentioned in the English version of the Psalms, but what the word is translated from I really cannot tell you. However, history tells us of a Saxon organ, and probably St. Dunstan made organs of this sort, which had a pair of bellows to each pipe. The instrument must have been somewhat cumbrous and its capacity limited. We may picture to ourselves the master musician surrounded by his expectant assistants at the various pairs of bellows directing their labours in some such fashion as: George, Erny, George, George; George, Fred, Alf, Alf; Alf, George, Billy, Bill; Alf, George, Charley, Charles. The church organs of the Middle Ages, when they had passed this primitive stage of development, were for a good many generations quite small affairs. Instruments with any approach to the size and complexity of a modern organ do not appear to have been introduced until the sixteenth and seventeenth centuries.

The mechanical genius of an earlier generation had found its outlet chiefly in the construction of curious church clockwork objects of piety, such as the miraculous images which winked, eagle lecterns which turned their heads to the east when the Gospel was read, and wonderful clocks like those at Wells and Strasburg Cathedrals, in the former of which a number of dolls perform strange antics when the hour strikes, while in the case of the Strasburg clock there are, I believe, a set of marionettes representing St. Peter and a crowing cock and other scriptural events.

The degenerate descendants of these masterpieces of ingenuity may be seen in the cuckoo clocks and man-and-woman barometers with which most of us must be familiar.

At the time when the idea of building big church organs first came in, the demand for winking images and wonderful clocks seems to have gone out of fashion, but human nature remained much what it was before, and the records of the earlier large organs tell us of wonderful stops which imitated the sounds of the farmyard, the roar of the leviathan, the ringing of bells, and various other pleasing sounds.

I do not know that we have become such purists as to have discarded these somewhat childish accessories in our modern church organs, but I believe it is possible any afternoon to listen to the strains of an instrument which would have made the mouths of the sixteenth- and seventeenth-century organ builders water by visiting Messrs. Maskelyne & Devant's entertainment at the Egyptian Hall; while in many a country fair one can enjoy a ride on the merry-go-round to the strains of a steam organ the variety and scope of which leaves little to be desired.

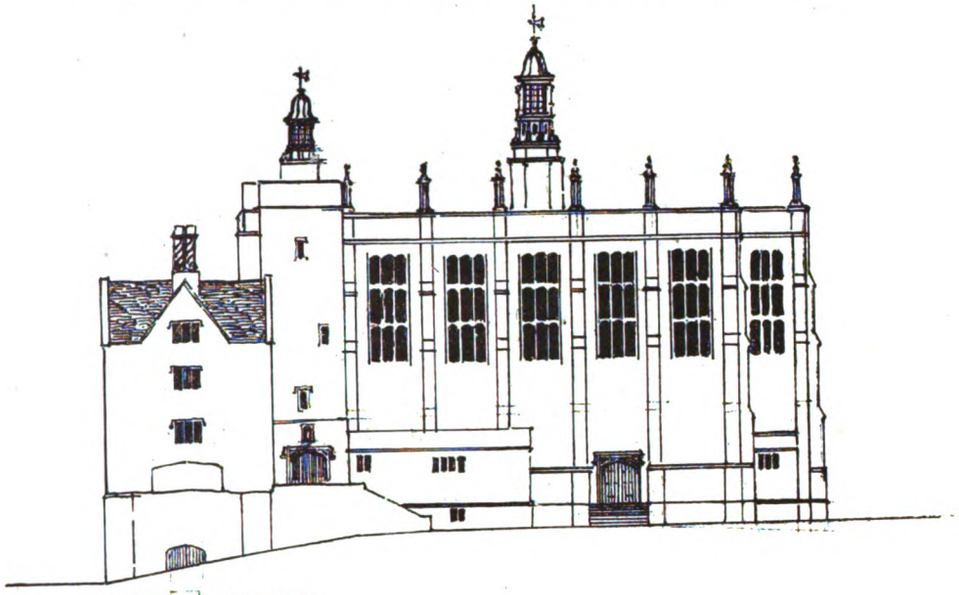
(To be concluded.)

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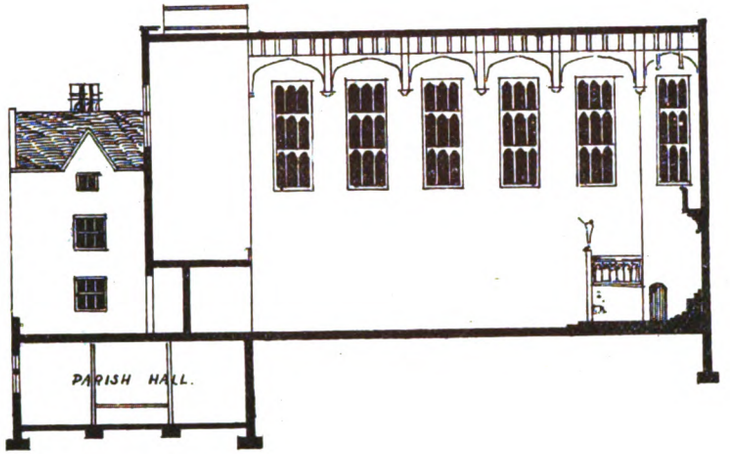
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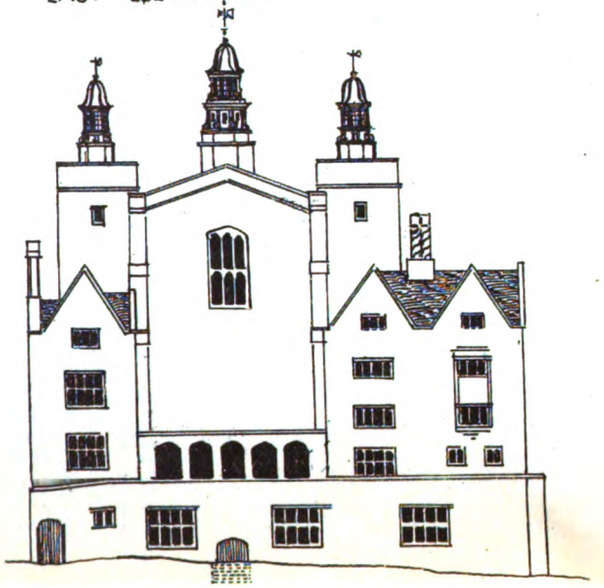
PROPOSED CHURCH, PARISH HALL & VICARAGE.

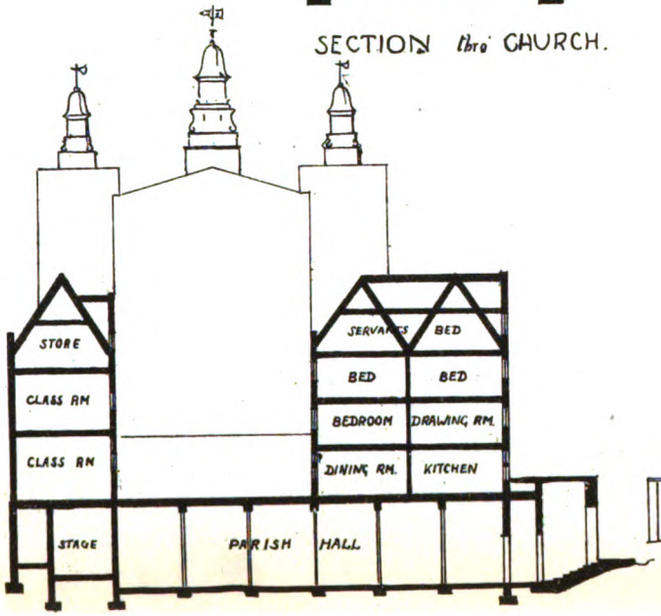


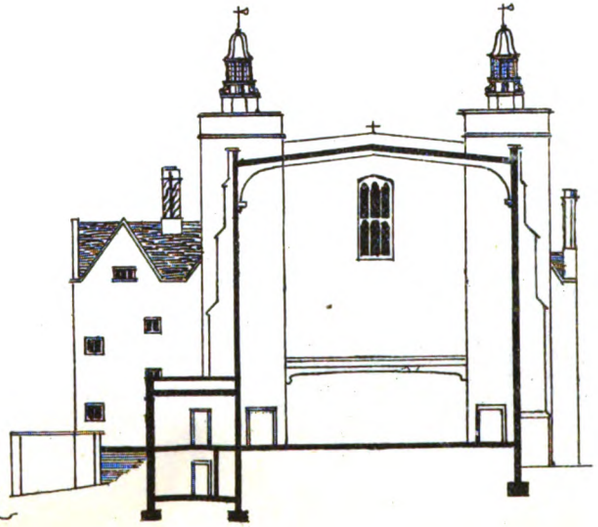
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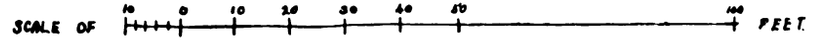
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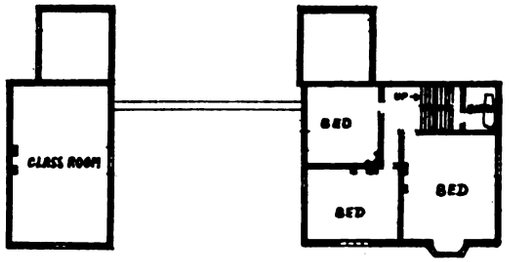




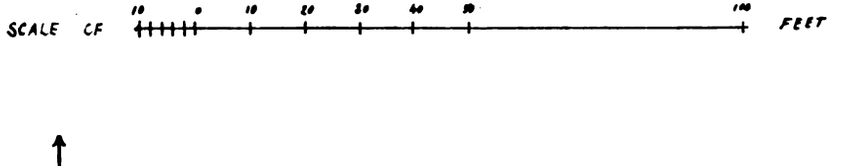


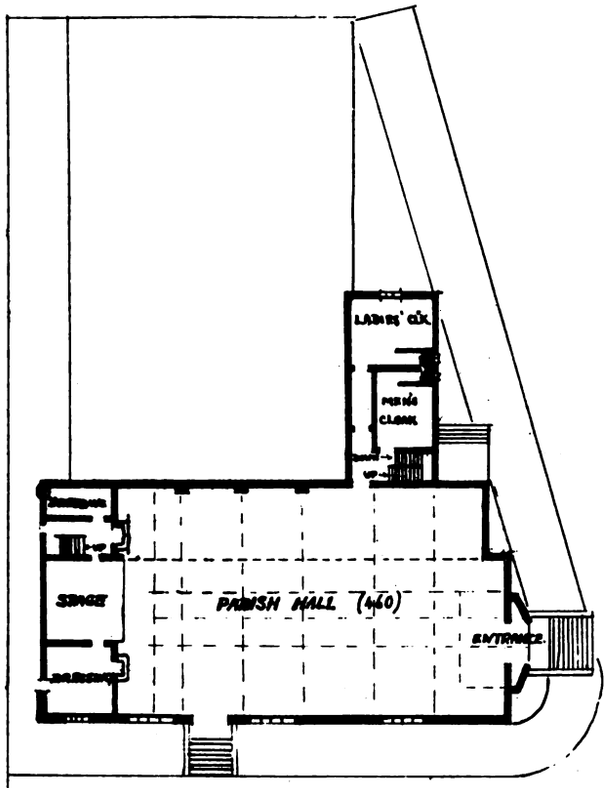
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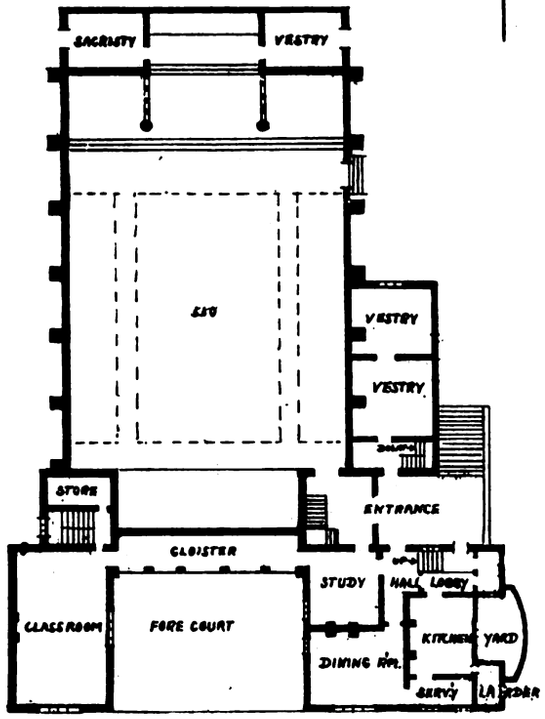


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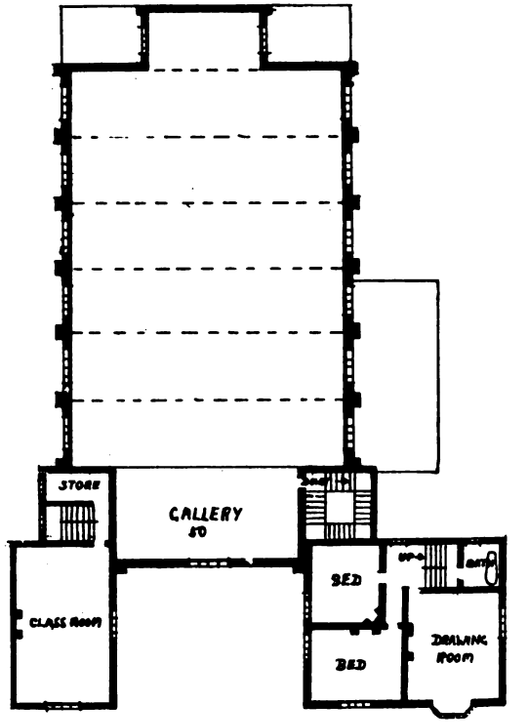




PLAN of PARISH HALL.



GROUND PLAN.



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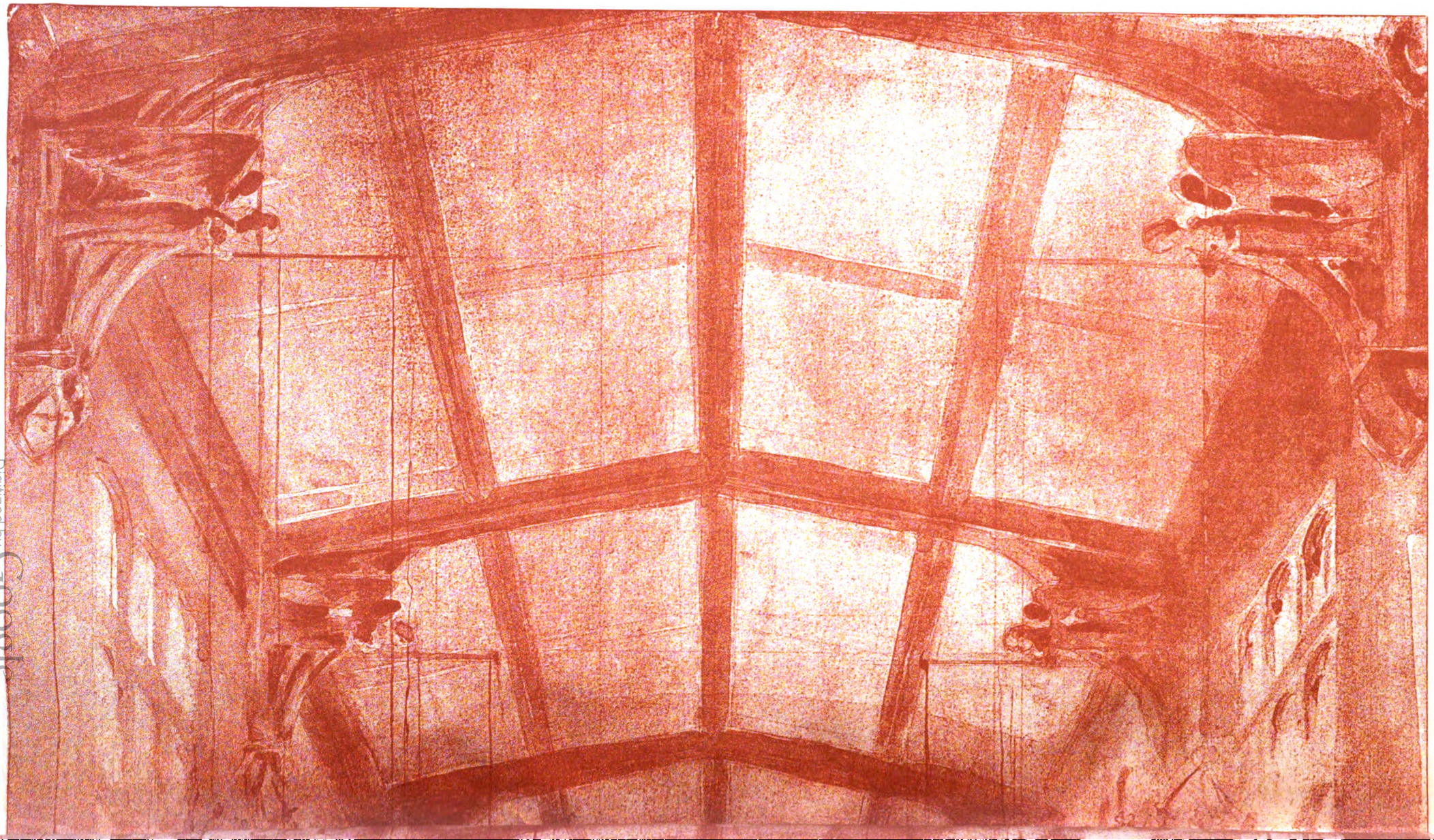
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PROPOSED CHURCH, PARISH HALL AND VICARAGE.

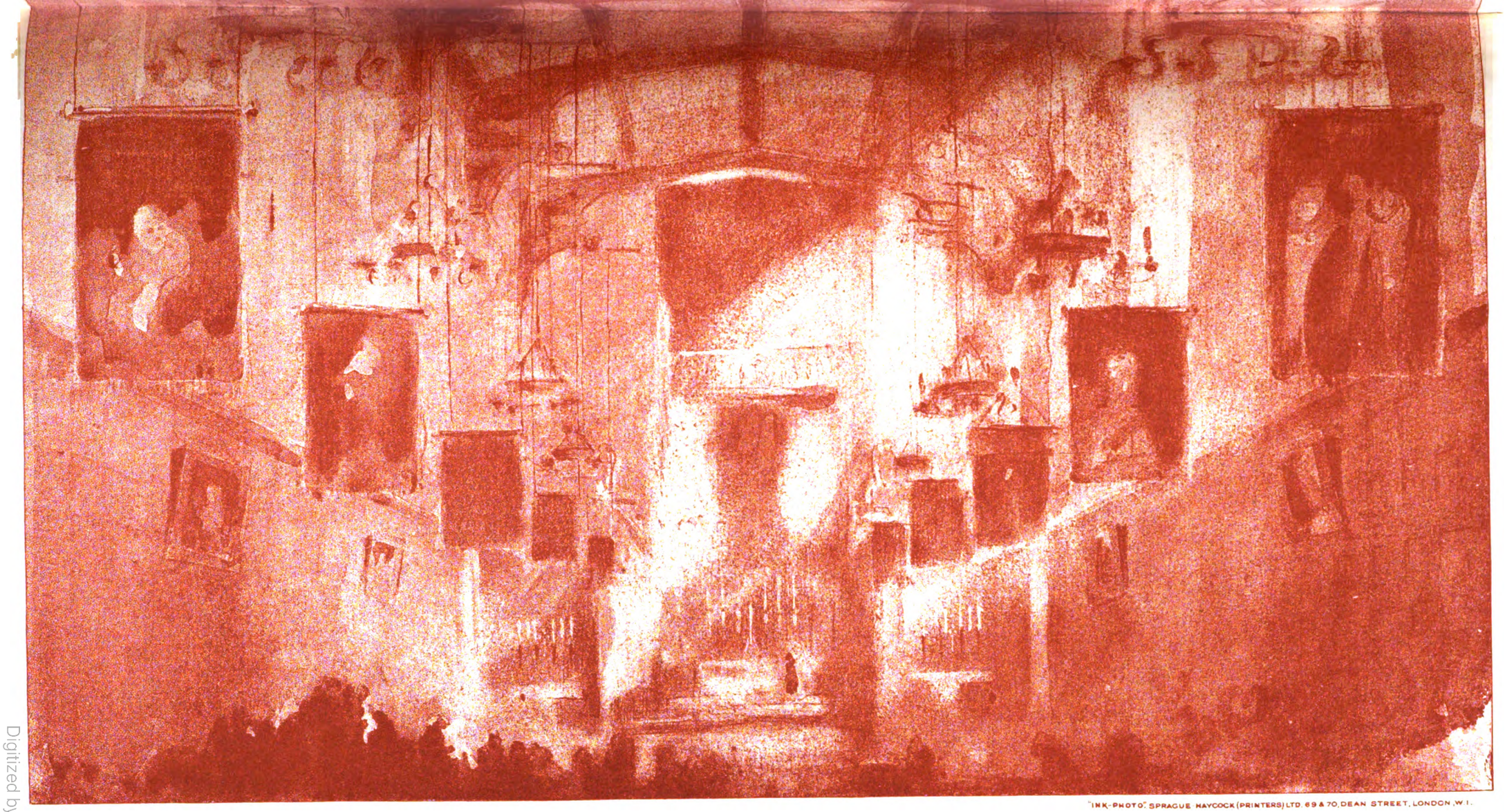
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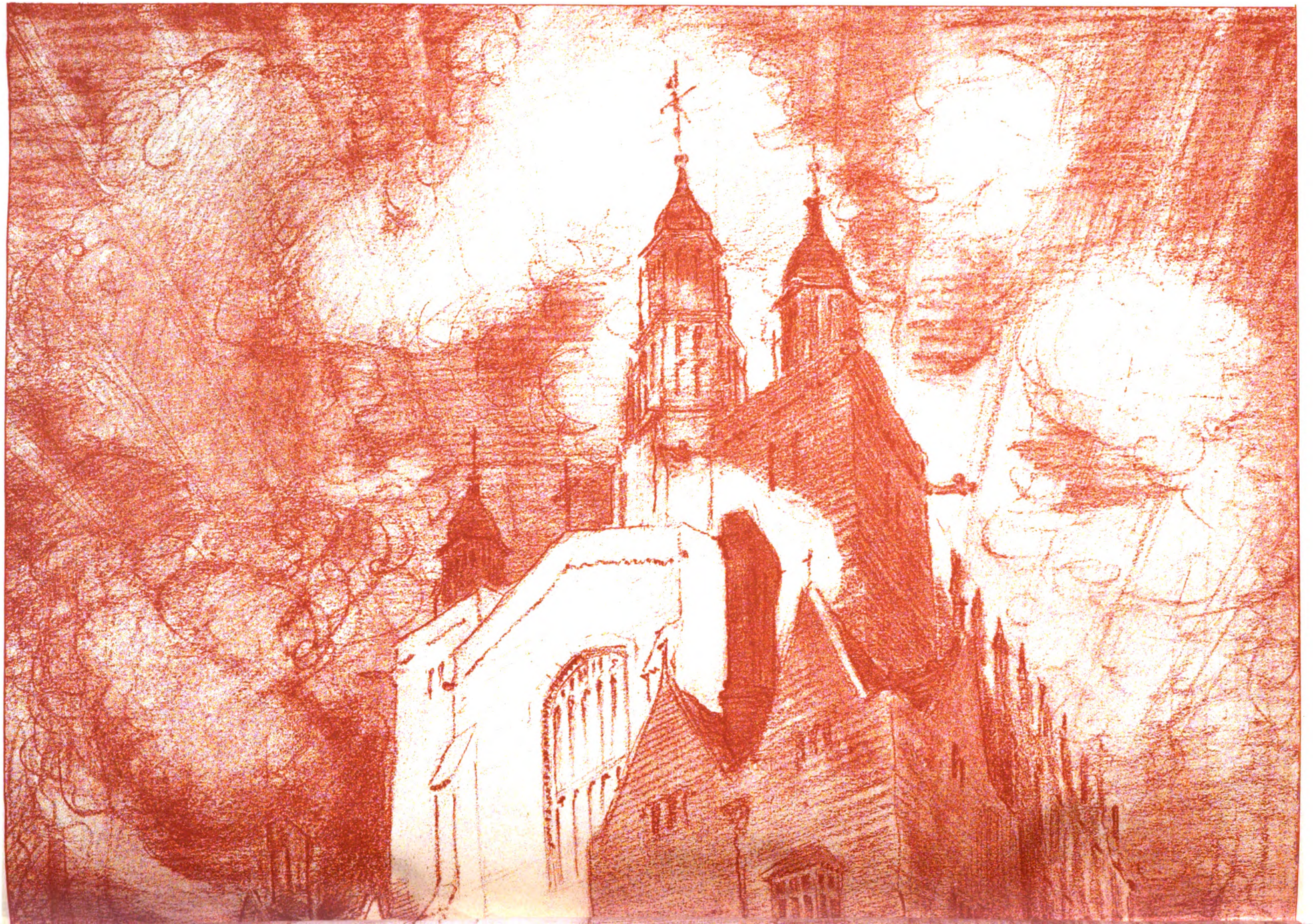
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New Books.

"Useful Engineers' Constants for the Slide Rule." By J. A. Burns, M.I.Mech. London: Percival Marshall & Co. Third Edition. 2s. 2d.

A small but eminently practical work, that will undoubtedly achieve its author's object, which is "to show how the slide rule may be used in a general manner to the best advantage in solving problems which the practical engineer meets with every day." An intelligent grasp of the working methods of the rule must, of course, precede the power of obtaining the benefit derivable.

The appreciation which the book has met with is evidenced by the fact that a third edition is in request. We quite agree with the author that there is a lack of uniformity in published data in many subjects, and he has therefore sensibly endeavoured to select safe average figures as the basis of his treatment. The latest edition has been extended in scope, and even those who possess the previous edition or editions will do well to obtain a copy of the one now noticed.

"The Modern Painter and Decorator." By A. S. Jennings, F.I.B.D., and Guy C. Rothery. London: The Caxton Publishing Co., Ltd. Three volumes, £1 2s. 6d. each volume.

We recognise from of old that the Caxton Publishing Company is ready to undertake monumental works, producing them with a due regard both to typography and display, and the present book is no exception; it is veritably a library work from the standpoint of appearance But all the same we cannot resist the thought that the goods displayed in the window are not altogether worthy of the fine architectural shop-front. It seems to us that the obvious is so much in evidence, which will appeal neither to him who is "just entering on his career" nor to him who is "in full practice of his art." Indeed, the former would not be very likely to afford the money.

Let us first consider Volume I. Can it really be supposed that either of the two classes, for whom the authors cater, would appreciate being supplied with either textual or pictorial information upon the workshop and its stage "properties," or upon the methods of straining and mixing paints? Nor do we think that the contents of Chapter II., dealing with the subject of painters' materials, will exercise a stronger appeal, and this chapter alone accounts for nearly fifty pages (quarto).

The next chapter deals with measuring and estimating, and here within the compass of half a page regarding methods it is but reasonable to expect that there shall be correct and consistent information upon such a well-understood subject as measurement. If the suggestion about iron cresting is, that for railings and cresting the measurement shall be taken "superficial," whilst for cresting by itself it shall be linear, this should be clearly stated; but in case this criticism is considered to indicate the desirability of spoon-feeding the reviewer let that item be set aside for the detail of "casements," which are customarily numbered; the authors in fact include this item in the third section of the list, which is appropriated to "numbers," but then, why include casements as to be measured "superficial" also? Here again it is possible that the authors will claim that the error is merely due to those wretched compositors. So once more quitting a possibly debatable point (after remarking, that in a work of this class one does not expect such errors), it may be pointed out that balusters and skirtings are customarily measured per foot run, though the former are sometimes numbered, whilst the latter are measured per square yard, when of excessive depth.

The tables given in Chapter III. are distinctly useful, but the value of Chapter IV. may be almost entirely discounted, dealing with prices for painter's work; prices are not to be depended upon for more than very brief periods, nor do the suggested methods of adapting the figures appear sufficiently satisfactory.

The information upon colour glazing, contained in Chapter V. is a feature of value, and the selection of recipes for colour mixing contained in Chapter VII. should also prove welcome. Other chapters worthy of attention deal with distempering, gilding, lettering, and sign writing.

But what is the *raison d'être* of the last chapter upon law and insurance it is hard to conceive.

When we come to Volume II. we are confronted with similar points of favourable and adverse criticism, as have hitherto applied. It would probably be thought unkind to suggest that with the chapter containing "Hints and Dont's for Decorators," given at the end of this volume, and a comparatively few only of the other chapters and illustrations scattered throughout the three volumes, a much better work for practical purposes would have been provided. In Volume II. Chapters 6, 7, 8, 10, and 12 might have been advantageously omitted, whilst Chapter XIII. contains just the kind of useful information that is so desirable for a work of this nature. The tables on pages 5 and 6, respecting measurement for wall-papers of different kinds are distinctly valuable, and in fact the subject of papers and hanging is very well dealt with. The author says, that he knows a case, where ten papers were found on a wall! The reviewer can beat that, for in some work, which he had to undertake, it was possible to count eighteen papers, and even then there was a thickness where the papers were so closely adhering, that it was no longer possible to count them. It would be ungenerous to attempt to criticise adversely at every stage, where errors of style, composition, or technical information are discoverable, but we cannot pass over without protest the recommendations in various places to indulge in imitations and shams. A measure of approval must certainly be accorded for the information given upon the subject of defects in painting with their cause and cure, and also for the subject of Chapter IX., containing practical recipes.

Though it may be accepted that similar remarks are applicable to Volume III. as to the preceding volumes, yet it would be tedious, whether for approval or otherwise, to repeat oneself. The mass of matter in this volume is concerned with period styles and with broad considerations, preceded, however, by chapters upon colour and lighting. We are not impressed by the method of imparting the information about colour values. It may be admitted that opinions seem to differ as to what are the primary colours, but it only serves to show that theorising upon a subject, whether beneficial or not for scientific purposes, is out of place in a practical book. Some of the best portions of the present work are truly those consisting of quotations from other writers, and not least so in this very chapter dealing with colour values. The description of period styles is fairly elaborated, but will need revision in sundry particulars to produce accuracy.

It is rather extraordinary to observe in a book of this character anything in the way of condonation of Futurism and Cubism; indeed, it is more than mere condonation, it is approval; but still, despite obvious defects, these chapters upon period styles contain a large amount of interesting material. In dealing with heraldic blazoning the description of the shields should always be given as from the right and left of the bearer; the authors' failure to act thus produces the absurd description of a sinister bend being one from the right, whereas it obviously gets its names as being a bend from the left (sinister).

Throughout the three volumes there are some excellent colour and other illustrations, though their appropriateness is unfortunately not always in evidence; had the authors replaced some of these illustrations by others giving the results of different paint admixtures the exchange would have been welcome.

In conclusion more than a word of praise is due respecting the very carefully prepared index.

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"The Architect" Fifty Years Ago.

October 21, 1871.

Notes from India.

Archæology.—The Iron Pillar near the Kutub Minar, Delhi, was recently dug up by a *savant*, examined, and restored to its original position. Such an act has astonished the natives, who believe that the pillar goes right through the earth, and that any person who removes it or tries to remove it, will come to grief. The following is an account, given in a native paper, of the digging up:—"The place is dug two or three yards at a time, after which the Englishman smells the earth turned up, and then orders the operation to be continued. A window has already appeared, which some suppose to be the door of a subterranean apartment, while others have a different opinion." A few stone idols have also been discovered, which appeared to have belonged to the temple of Rai Bithowra, and to have been destroyed and buried by Mussulmans.

Public Works Congress.

The preliminary programme has been issued of the Public Works, Roads and Transport Congress, which is to be opened in London on November 18, and to continue till the 25th. The Organising Committee includes representatives of the County Councils' Association, the Association of Municipal Corporations, the Urban District Councils Association, the Rural District Councils Association, the British Waterworks Association, the Incorporated Municipal Electrical Association, the Institution of Municipal and County Engineers, the County Surveyors' Society, and the Institute of Cleansing Superintendents.

One branch only of the public services is the subject of a day's conference. Thus on the first day the Conference is organised by the Institution of Gas Engineers, Mr. Thomas Hardie, Deputy Chief Engineer of the Gas Light and Coke Company, as Chairman. Papers to be read include: Dr. Thomas on "Public Lighting by Gas" and Mr. W. G. Adam on "The Uses of Tar and other Materials for Road Surfacing" and "The Purification of the Atmosphere."

At the Waterworks Conference to be held on November 24, Mr. C. G. Henzell, M.Inst.C.E., City Waterworks Engineer of Leeds, contributed a paper on "Reinforced Concrete Roads and their Relation to the Laying and Maintenance of Water and other Service Mains." Other subjects to be discussed are "The Internal Corrosion of Cast-iron Pipes"; "Anti-Waste"; "Valuation and Rating of Waterworks in Scotland"; and "The Supply of Water to Steam Wagons and Road Engines."

At the County Councils' and Municipal Corporations' Conference on November 22, Mr. H. T. Chapman, M.Inst.C.E., County Surveyor, Kent, will read a paper on "The Care and Upkeep of Road Appliances, including the Establishment and Organisation of Depôts," and Mr. J. C. Haller, Notts County Surveyor, one on "The System of Costing in connection with Highway Construction and Maintenance."

Amongst the subjects to be discussed on other days are sewage treatment, road construction, and electric vehicles for municipal purposes.

Brigadier-General Sir Henry P. Maybury, K.C.M.G., C.B., is Chairman of the Organising Committee and Sir Lawrence Weaver, of the Board of Agriculture, Vice-Chairman.

Simultaneously and in connection with the Congress there will be a Public Works, Roads and Transport Exhibition at the Royal Agricultural Hall, Islington. The Exhibition is being well supported by the industries catering for the public services and promises to be of a most interesting character.

Preliminary plans for the proposed wing of Hanwell Cottage Hospital, prepared by Mr. R. A. Reid, architect, were passed at the last meeting of the Hospital Committee.

Competition News.

Members and Licentiates of the Royal Institute of British Architects must not take part in the Ilford Memorial Competition because the conditions are not in accordance with the published regulations of the Royal Institute for Architectural Competitions.

The R.I.B.A. Competitions Committee desire to call the attention of Members and Licentiates to the fact that the conditions of the Bury New Cinema Competition and the Southend-on-Sea Pier Pavilion Improvement Competition are unsatisfactory. The Competitions Committee are in negotiation with the promoters in the hope of securing an amendment. In the meantime Members and Licentiates are advised to take no part in these competitions.

Surveyors' Institution.

The first meeting of the session will be held in the Lecture Hall of the Institution, 12 Great George Street, Westminster, on Monday, November 14, at 8 p.m., when Mr. J. H. Sabin, President, will read his opening address.

The following programme of papers for the coming session has been arranged:—

November 14, 1921.—Mr. J. H. Sabin's Presidential Address.

December 12, 1921.—"Lime in connection with Plant Growth," by Mr. A. A. Hudson, K.C. (Associate).

January 9, 1922.—"Problems of Greater London," by Mr. W. R. Davidge (Fellow).

February 6 1922.—"The Forestry Directorate in the United Kingdom during the War," by Mr. H. A. Pritchard (Fellow), Chief Technical Officer to the Assistant Commissioner, the Forestry Commission.

March 6, 1922.—"The Analysis of Building Costs," by Mr. B. Price Davies (Fellow).

April 10, 1922.—"Agricultural Valuations," by Robert Cobb (Fellow).

May 8, 1922.—This date is left open until later in the session in case a subject arises requiring immediate discussion.

The meetings will be held as usual at 8 p.m.

The annual general meeting and distribution of prizes will be held at 5 p.m. on Monday, May 29, 1922.

A meeting of members of the Quantity Surveyors' Institution, practising in quantities, and members of the Quantity Surveyors' Association, will be held at 12 Great George Street at 3 p.m. on Friday, November 4, to consider proposals for arriving at a settlement with the Ministry of Health with regard to fees payable in respect of housing schemes where a number of surveyors are engaged on different sites forming one scheme, and where schemes have been wholly or partially abandoned.

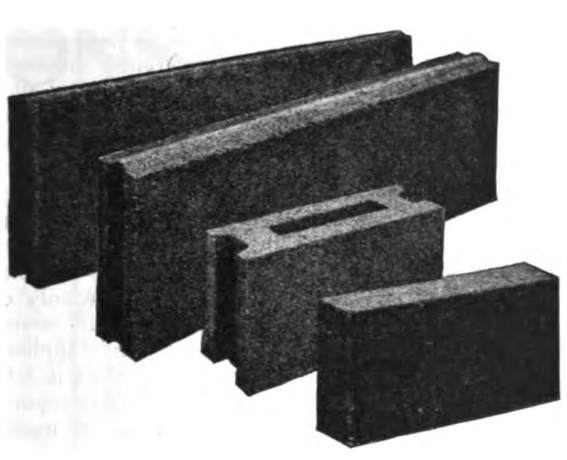
Institute of Scottish Architects.

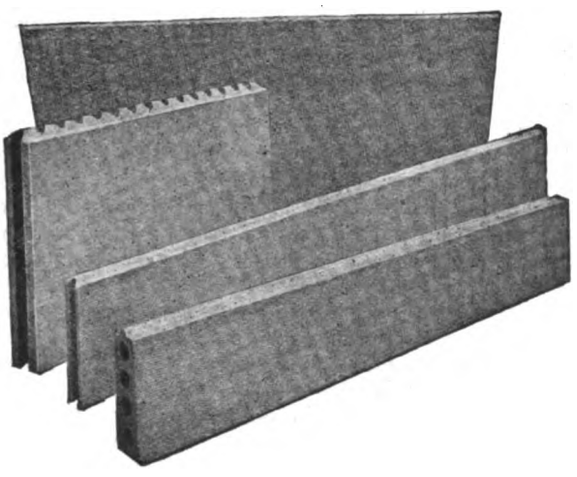
A meeting of the Council of the Institute of Scottish Architects was held on the 15th inst. at 117 George Street, Edinburgh, Mr. A. N. Paterson, President, in the chair. Further progress was reported regarding the application for a Royal Charter, and the application will shortly come before the Privy Council. It was remitted to the Competitions Committee to adjust a scheme for the enforcement of satisfactory conditions in public competitions in conjunction with the Royal Institute of British Architects. A report was tabled by the Education Committee regarding a conference which had been held with educational bodies throughout Scotland with a view to raising the standards and regulating the time to be spent at office and school work. The question of the desirability or otherwise of Art Commissions to advise the public authorities in Scottish cities on the question of amenity was also under consideration. A similar body, it was stated, had been in operation in Birmingham, and had done good work. It was decided to prepare a fuller statement of the whole position for next meeting. Applications for membership were submitted from Aberdeen, Edinburgh, and Glasgow.

A Chadwick public lecture, illustrated by lantern slides, on "Dry Rot of Wood and Sanitation," by Professor Percy Groom, M.A., D.Sc., F.L.S., Professor of the Technology of Woods and Fibres, Imperial College of Science and Technology, London, will be given in the Gallery of the Royal Institute of British Architects, 9 Conduit Street, W., on Thursday, November 3, at 8 p.m. The Chairman will be Mr. J. Slater, F.R.I.B.A., Chadwick Trustee. Admission is free.

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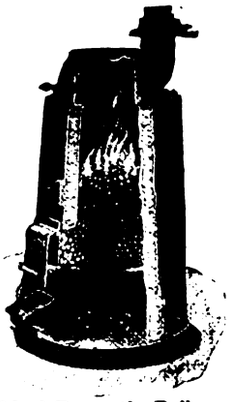
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Co-operation in the Engineering Industry.

A dinner was held recently at Olympia " to commemorate the successful Co-operation of Employers and Workers as exemplified at the Shipping, Engineering and Machinery Exhibition." The chair was taken by Capt. H. Riall Sankey, C.B., C.B.E., R.E., president of the Institution of Mechanical Engineers, and there were present a number of employers and representatives of the employees.

After the loyal toasts had been honoured, Captain Sankey said that the co-operation had been manifested in a variety of ways and was not limited to the men actually engaged at Olympia. Many employers had afforded their men special facilities to attend it, and one employer had sent no less than 2,000 of his workpeople there. This feature of the exhibition had been so remarkable that it was thought worth while that representatives of both sides should join in a social gathering to mark the close of the event, and everybody shared the hope that the gathering might be the forerunner of many similar gatherings, and the beginning of a movement to produce more amicable relations between employer and employed, so that the gulf of mistrust and prejudice between them might be bridged. The bridging of this gulf was the key of the industrial situation. With goodwill on each side and an endeavour on each side to realise and appreciate the point of view of the other side a great advance towards industrial peace would be secured.

Mr. W. A. Appleton, (Secretary, General Federation of Trade Unions), in proposing " Success to the engineering industry," declared that even with the problem of 550,000 unemployed and the shadow of internal misunderstanding over everything, he had confidence in the adaptability and power of recovery of the industry and looked hopefully to the future. Speaking as a Labour representative, he predicted that the future would be influenced more by association and understanding than by revolutionary effort. " Co-operative efforts and mutual understanding," he said, " with a wise development of general interest, will do more in a generation to bring all possible control within the reach of the manual worker than a century of revolution." Mr Appleton expressed the view that workers are quite ready to advance on these lines if they are given due encouragement, and he regretted that all employers are not equally ready to do their part. Here and there, he said, employers do not seem to appreciate that the human factor is a matter of very real concern in the discussion of industrial problems. He pleaded that the human factor should never be lost sight of, and that all sections of each industry should combine to deal with matters vital to the industry as a whole.

Dr. H. S. Hele Shaw, D.Sc., LL.D., M.I.Mech.E., in the course of his reply to the toast, said there was a growing hope of restoring pre-War prosperity in the engineering industry, and the hearty co-operation of employers and employed and of all other agencies to produce engineering products for the world at prices which will command the markets of the world. The pernicious idea which regards this country as a watertight compartment, which can manufacture for itself, buy from itself, and sell to itself, was disappearing What a horrible place this realisation of a sort of Utopia of Sir Thomas More would be for any intelligent person to live in. But we do not produce enough food to live upon, or raw materials of most kinds, and we must look to the outside world. Suppose the dream of ultra Socialists to be realised and the available wealth of the country were to be divided so as to purchase the necessities from the outside world, this would only carry us on for a few years, and then it would be a question of either starvation or leaving what is, with all its faults, the best country in the world both as to real freedom, and as possessing the finest and healthiest climate to live in. Now we must remember that we only represent two to three per cent. of the population of the world, and we must consider our attitude to the ninety-seven to ninety-eight per cent. outside ourselves. From them we obtain what we must have by means of (1) force or (2) honourable barter. The first alternative would not have been seriously entertained even before the Great War. The one remaining possibility of barter can only be put into practical operation by producing (as a result of engineering industry) better and cheaper products, so as to induce the world to take them in exchange for what we want in preference to products of our rivals. Here we come then to the crux of the whole matter. Both employers and workmen must combine to this end—since any narrow, selfish, short-sighted policy is bound to bring in its train the punishment of want and suffering, such caused by the stagnation of trade, and the unemployment that exists at the present time. Dr. Hele Shaw said he was optimist enough to believe that all classes, even our politicians, have been brought to realise that this is the only cure for the present terrible state of things in the country. Visitors to the Exhibition saw on all hands appliances for " aiding " labour. Perhaps the real word is *labour* " superseding " device. Whenever a labour-superseding device is introduced, some effort must be made to provide work at a *better* rate for those whose work is superseded. Then instead of meeting the introduction of a labour-saving device with opposition, it would be welcomed with enthusiasm. It is the failure to realise this that has always led to trouble in the past, whether in engineering or anything else. Denis Papin who put the first steamboat on the Rhine was nearly killed by the Rhine boatmen and his boat was destroyed. Dud Dudley, the man who superseded charcoal by pit coal to smelt iron had his works destroyed, and he barely escaped with his life from the charcoal burners. Now a labour-saving device is not always profitable, and here the Government can wisely step in and encourage the employer in the use of such devices, and at the same time assist in some way in the provision of work for those whose work is superseded. If this could be done the labour-saving devices would be received in the same way in this country as they are in America, where the workmen do not fear that the 1,200,000,000 people outside their country will not be able to absorb all they can produce even with the best labour-saving appliance, there is evidence at this Exhibition that we should move forward again to the position we once held in the industries of the world. Besides employers and workmen, or capital and labour, there is a third class, viz. the overlooked class which invents and designs improvements. The lot of the inventor is a hard one. Bessemer, Lord Armstrong, Sir Charles Parsons, Sir Robert Hadfield are cited as successful inventors. A few succeed, while the multitude perish.

The toast " Shipping and Commerce " was proposed by Mr. W. Reavel, M.I.Mech.E., and responded to by Mr. T. Chambers (The National Sailors' and Firemen's Union of Great Britain and Ireland).

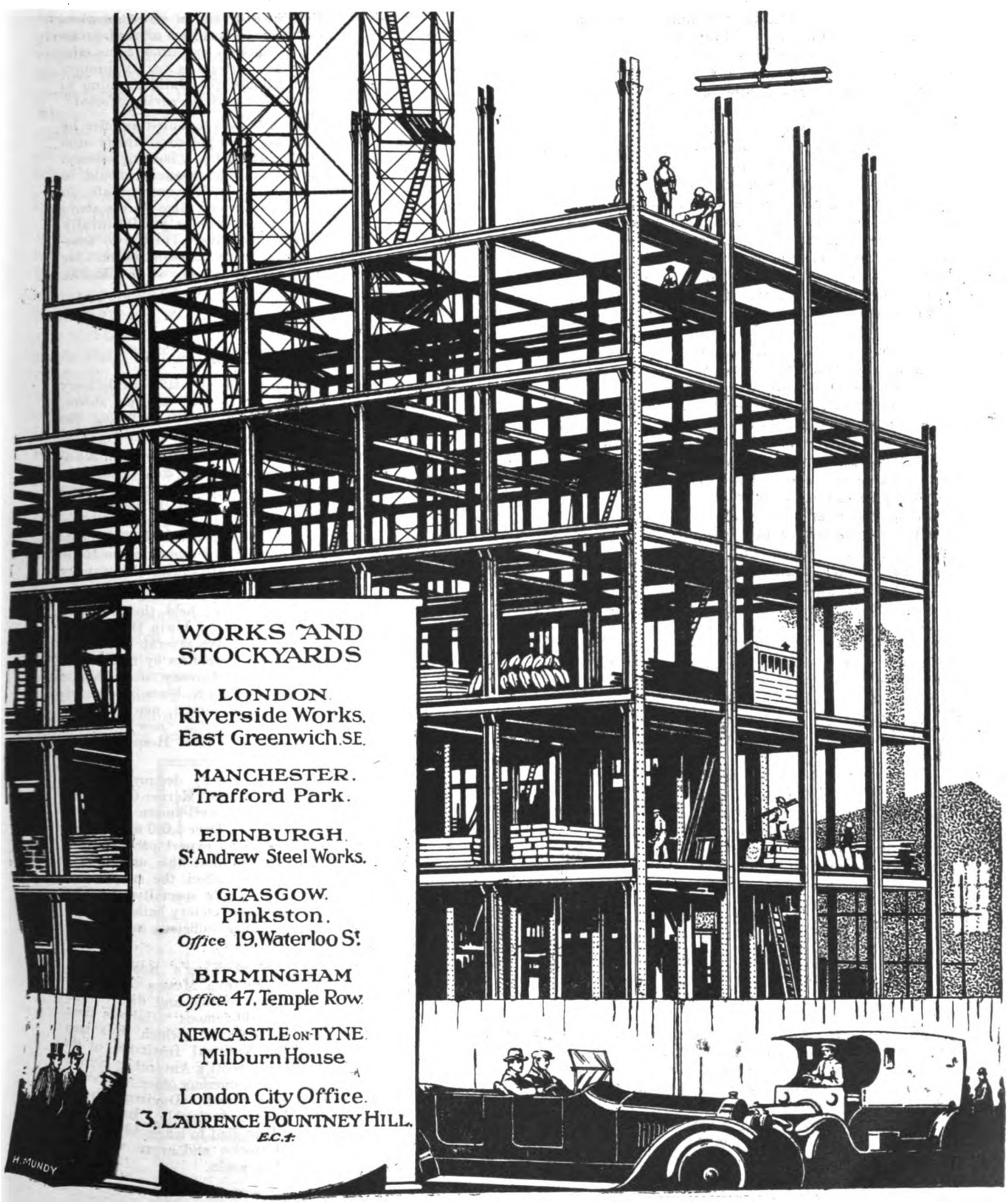
Mr. W. H. Patchell, M.Inst.C.E., proposed " The Organiser of the Exhibition," and a reply was made by Mr. F. W. Bridges.

The final toast, that of " The Chairman " was proposed by Mr. G. Midgley Taylor, M.Inst.C.E.

The annual meeting of the National Building and Engineering Brick Federation was held at the Queen's Hotel, Birmingham, last week. Mr. George Barlow presided, and there was a representative attendance of brickmakers from all the affiliated districts throughout the country. Mr. Percy M. Stewart (London) was elected president, and Mr. W. H. Wright (Sileby) vice-president. The council of the Federation were entertained to luncheon by the local brick manufacturers. In the afternoon a conference of manufacturers of building bricks was held, when Mr. Edward Taylor read a paper on "Price Associations and Pooling Schemes in the Clay Industries." Mr. James L. Milne (Birmingham) gave an address on " The Assessment of Brickfields for Rating." The subject of "A Publicity Campaign for Brick as Building Material" was introduced by Mr. Roy Valkenburh (London), and a discussion followed.

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General.

We are informed that Messrs. Rippers, Ltd., shopfitters, have opened offices at 165 Gray's Inn Road, London, W.C.

At a meeting last week of Dundee War Memorial Committee it was reported that the fund now in hand amounted to £11,936. Sir Robert Lorimer had intimated that at least £15,000 would be necessary to erect a suitable memorial on Law Hill, but Mr. James Thomson, the city engineer, thought this sum would not be sufficient to justify the Town Council in granting the site. It was finally decided to invite designs for a memorial on Law Hill at a cost of £15,000, Sir Robert Lorimer being appointed assessor.

The Corporation of Doncaster have in prospect a big scheme of sewerage and sewage disposal, for which purpose a public inquiry was held at the Guild Hall into an application to the Ministry of Health for permission to borrow £410,000 for the purpose and for the extension of works in Kirk Sandall. The Inspector was Mr. M. T. Weeks. No objection was raised to the scheme. Mr. F. O. Kirby, Borough Surveyor, explained the scheme in detail. The original estimate of the cost in January was for £410,000, but since then there had been a reduction in prices, and he estimated the cost now at £340,000—a drop of £70,000.

At a meeting of the Dewsbury War Memorial Committee, on the 13th inst., Mr. H. Dearden, Borough Surveyor, submitted a report on the adoption of the front of the Town Hall for the town's memorial. His principal recommendation was that the external steps to the Town Hall should be so extended as to provide spaces on each side for two groups of statuary, to represent "Sympathy" and "Peace." Mr. Dearden also suggested that marble tablets should be erected within the vestibule. He further recommended that, if approved, the work be placed in the hands of an eminent sculptor. The report was approved unanimously. It was also decided to consult Mr. John W. Simpson, PP.R.I.B.A., with a view to obtaining his opinion as to the actual form the memorial shall take.

The President and Council of the Royal Academy are preparing an exhibition of works by recently deceased members of the Academy, to be held in January and February next. With a view to making the exhibition as representative as possible in each case, they will be greatly obliged if owners of important oil paintings, water-colours, drawings, or engravings by any of the artists named in the following list will kindly communicate with Mr. W. R. M. Lamb, the Secretary, if they have not already done so, before the end of the month. Any photographs that could be sent would be very useful for identifying the works suggested: Mr. Lamb's list is as follows: J. H. F. Bacon, A.R.A.; J. Belcher, R.A.; F. Bramley, R.A.; E. Crofts, R.A.; E. Crowe, A.R.A.; H. W. B. Davis, R.A.; Sir A. East, R.A.; A. C. Gow, R.A.; A. Hacker, R.A.; C. N. Hemy, R.A.; Sir H. von Herkomer, R.A.; G. D. Leslie, R.A.; J. MacWhirter, R.A.; A. Parsons, R.A.; Sir E. J. Poynter, Bt., P.R.A.; Sir W. B. Richmond, R.A.; B. Riviere, R.A.; J. Sant, R.A.; R. Norman Shaw, R.A.; L. P. Smythe, R.A.; M. Stone, R.A.; G. A. Storey, R.A.; E. Stott, A.R.A.; W. Strang, R.A.; J. W. Waterhouse, R.A.; Sir E. A. Waterlow, R.A.; W. F. Yeames, R.A.

Housing News.

The Barnsley Town Council are about to negotiate with a view to obtaining the cancellation of the building of the remainder of the houses of the Dorman-Long type on the Wilthorpe estate, so that brick houses could be built.

Saddleworth District Council, Yorkshire, as part of their housing scheme, converted an old laundry into three cottages. The cost has worked out at £2,728, making, with the purchase price of the laundry, a total cost of nearly £4,000. Among the items were £1,248 for masons and carting, £705 for joinery, £319 for plumbing, £40 for painting, and £50 for plastering.

At a public inquiry held at Maltby, on the 13th inst., by an inspector of the Ministry of Health, the clerk to the Rotherham Rural Council, said the Maltby Main Colliery Company were proposing to erect about 500 houses during the next few years. Sanction was now required for the borrowing of £1,061 for the purpose of extending a water main to a site near Grange Lane, Maltby. Building had been commenced on fifty-eight houses. There was no opposition to the application.

In a circular relating to public utility societies and the issue of share or loan capital with interest, the Treasury give notice that, for the purpose of the various Acts as amended by Section 6 of the Housing Act, 1921, the prescribed rate shall, for the time being, be 6½ per cent. per annum, and that for the purpose of Section 10 of the Additional Powers Act, 1919, as amended by the said Section 6 of the Act of 1921 (Applying to Ireland), the prescribed rate for the time being shall be 7 per cent. per annum.

By a majority the Epsom Urban Council has decided to recommend the Ministry of Health to accept the tender, £19,250, of the Guild of Builders for the erection of thirty houses. The tender is about £300 below that of an Epsom firm of builders. In the opinion of one of the councillors in a minority, the Guild of Builders has been allowed privileges which have not been permitted the other firms who had tendered, and the amended contract is very improper. If the work costs less than £19,520 the Guild is going to pay the Urban Council ten per cent. of the saving effected.

Westminster City Council last week accepted an offer by the Duke of Westminster to lease for a period of ninety-nine years a vacant site in Pimlico Road for a housing scheme. It was stipulated that preference for tenancies should be given to existing tenants on the Grosvenor estate in Westminster; the buildings not to exceed three storeys above the ground floor, and that they should be architecturally attractive, but not needlessly expensive. Thirty-two tenements, comprising 120 rooms, with accommodation for about 300 people, will be provided, at a cost of £35,000, and rents will range from 14s. to 17s. 6d. weekly.

Trade Notes.

The Midland Railway Company have just taken delivery of their repeat order for sixty "Cendra" sawdust stoves, which will be used throughout their system during the coming winter.

Messrs. J. Gerrard & Sons (1920), Ltd., of Swinton, Manchester, have produced a neat twelve-page booklet to show their ability to relieve architects and house-builders of their woodwork difficulties. The firm claims that its plant is the most modern and complete in the country; in the machine-shop alone there are 150 wood-working machines. This business is directed by half a century's experience in the trade in all its branches. Messrs. Gerrard are equipped to supply the complete woodwork of a housing contract.

The Associated Fire Alarms, Ltd., held their annual meeting on the 18th inst. at their offices, Jewin House, Red Cross Street, E.C. The company have several large contracts in hand for the protection of premises by their automatic fire-alarms, including the Air Ministry, stores depôts at Ruislip and Milton; Messrs. Dickins & Jones, new building, Regent Street; Messrs. Peter Robinson, new building, Oxford Street; Messrs. Selfridge & Co., new building, Oxford Street; the Three Counties Mental Hospital, Bedfordshire.

A fierce fire at King's Lynn recently destroyed one of the stores of boxes belonging to Messrs. Kerner-Greenwood & Co., Ltd., the manufacturers of the well-known "Pudlo" brand cement waterproofing powder. Over 8,000 metal-lined wood boxes which this firm use as an export package were entirely destroyed. We understand that this unfortunate occurrence will not in any way affect the supplies of "Pudlo," or any other of this firm's specialties, as the fire occurred some distance from their factory buildings, and their reserves of empties are amply sufficient to meet all demands likely to be made upon them.

Building Products, Ltd., 44-46 King's Road, Sloane Square, S.W. 3, have taken over from Messrs. Arthur L. Gibson, of Twickenham, the sole selling and distribution rights in this country of the world-famous "Cabot's Heat Insulation and Sound-Deadening Quilt," which has been used with such success at the National Institute of the Blind, St. Paul's School of Music, Scott's Antarctic Expedition, Marconi's silence huts, and numerous other important jobs where other materials had failed. During the war supplies of Cabot's Quilt were unobtainable, but architects and other former users will be glad to learn that Building Products, Ltd., hold good stocks, and even very large orders can be executed in a few weeks.

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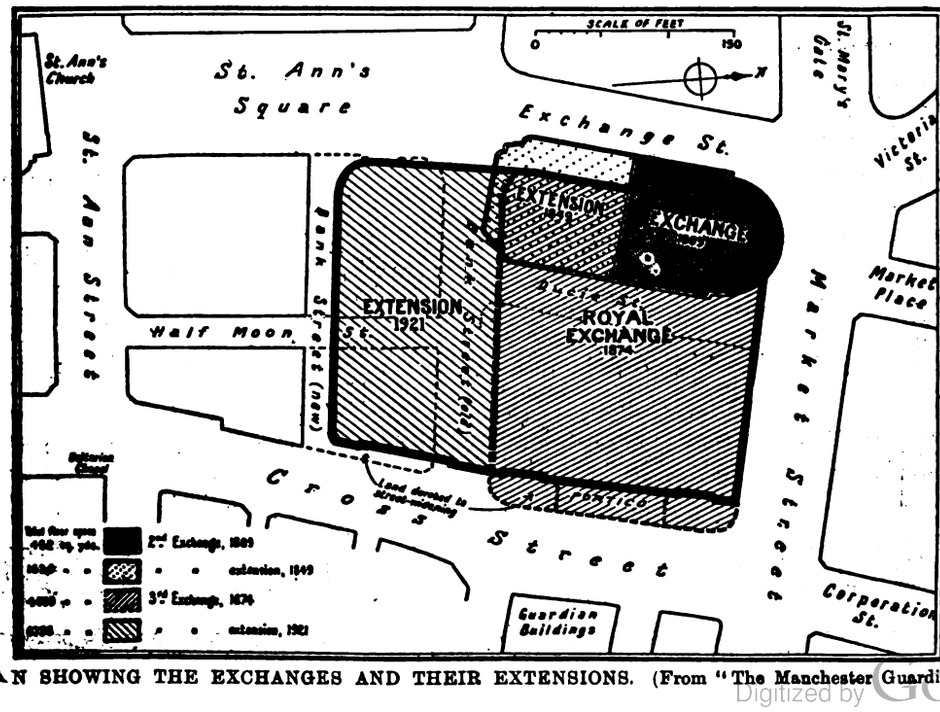
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Manchester Royal Exchange.

WHAT the Wheat Pit is to Chicago the Royal Exchange is to Manchester—the focal centre of a great industry. Like Chicago, Manchester is surrounded by important towns, whose industries are similar to its own, but to all of us Manchester suggests cotton, as Birmingham hardware and Chicago wheat. The great Manchester Exchange is as closely connected with the fortunes of cotton as our ancestral seats are with the fortunes of the families who built and own them, and the Exchange is in a sense a more typically municipal building than the Town Hall itself. The romance of an industry may not stretch back for centuries like that of a family, but it is full of memories and stirring incidents which have made and marred the fortunes of many. The earliest record of the import of cotton, however, dates back as far as 1697, when 4,000 bales of 500 lb. each are said to have been imported, an amount which was more than doubled in the course of the succeeding century, a large part of the supply coming from the West Indies and Central America. Brazilian cotton was first introduced in 1781 and Indian cotton in 1783, while ten years later American cotton was first publicly quoted. America was to become the great centre of supplies, a factor which had its effect on our international relations with the United States when the Civil War broke out. The blockade of the Southern ports led to the stirring adventures of the blockade runners, while the hardships produced among the Lancashire weavers and owners doubtless had its effect in stimulating English sympathy with the supporters of "States Rights." Since that epoch the area of cotton production has been extended to cover India, Egypt, and Nigeria, while many look forward to an epoch when we shall be able to obtain all our supplies from within the confines of the Empire. The conditions governing the industry have doubtless had no little influence on the politics of Lancashire, which has always been the home of the Free Trade movement. From the employment of a few thousand people a century and a-half ago the various industries connected with cotton gave employment to 689,000 people immediately before the outbreak of the Great War, involving the greatly larger number of those dependent on the fortunes of the industry. Cotton-spinning machinery has been a field in which many inventors have exercised their skill, and to-day the mills of Lancashire are fitted with every contrivance that human ingenuity can devise to help the process of manufacture.

It was largely the earlier conditions under which the industry was carried on which brought about our factory legislation, while Manchester will feel the first effects of the growth of the manufacturing industries in India and the East, where again the establishment of import duties on manufactured goods is calculated to make its citizens wish for the establishment of universal Free Trade until the possible advent of the time when we may be undersold in the home market.

We have alluded very briefly to the historical and political history of cotton, as it gives additional interest to a building which is so closely and specially identified with it. The building recently opened is the last of three Exchanges whose erection and demolition have marked the phases of growth and development. The first Exchange was built in 1729 by Sir Oswald Mosley, the Lord of the Manor, and was not unlike the typical Market Hall of the past, with an arcaded ground storey wholly or partly open to the surrounding streets and a stairway to a hall situated on the first floor, which was used as a Law Court or Court Leet. In 1790 this building was pulled down, as it had become quite inadequate, and its open central area proved to be a nuisance. For



PLAN SHOWING THE EXCHANGES AND THEIR EXTENSIONS. (From "The Manchester Guardian."

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the next nineteen years business was carried on in the open street, and afterwards in a room in King Street. In 1809 a second Exchange was built on a corner of the site of the present Exchange, occupying about one-fifth of the area of the third Exchange before its extension. The architect was Mr. Harrison, of Chester, whose ability was of a distinctly high order. This building had a semicircular room towards Market Street, joined to a rectangular block behind it, one flank of which fronted Exchange Street. It was excellently designed and dignified in type, but proved insufficient for its functions, and in 1845 was enlarged by Mr. Mills, whose work is recorded by drawings and photographs, and these additions doubled the area of the Exchange. Again in 1857 this was remodelled and a gallery added, a model of which is in the possession of the Manchester Society of Architects.

After the passage of another twenty years this building, proving insufficient for its purposes, a competition for a third Exchange was instituted, and the plans submitted by Mr Mills and his partner, Mr. Murgatroyd, were selected. The building was opened in 1871 and finished four years later, and formed the third Exchange, which has now been enlarged by Messrs. Bradshaw Gass and Hope, and of which we give illustrations.

The design was fine and dignified for its date, which was not a happy era in the history of English architecture. It may be described as being an unusually good design in the Italian manner then in vogue. But after thirty-five years had passed enlargement became necessary, and a competition was held, which resulted in the selection of the design by Messrs. Bradshaw, Gass, and Hope in 1914. Though the architects were fettered by a necessary adherence to the lines of the existing building, they have achieved a success which, under the circumstances, is highly creditable, and proves their skill. Had they been able to start *de nouveau* they would have been able to design a finer building, but, tied as they were, they have proved their capacity by remodelling, enlarging, and greatly improving the Exchange, which it would have been wasteful to demolish. The exterior and interior views, which, by the courtesy of the "Manchester Guardian," we give, have been made by Mr. Frank Emanuel, and express the character and appearance of the building better than any photographs could do, for which reason we give them together with scale plans, elevation, and section, which will enable our readers to do justice to the intricacy of the problem and the very able manner in which the architects have dealt with it. We will close this description by alluding to the manner in which the large space of the Exchange is utilised. On each of the columns along the length of the Exchange is a letter, and on each of the columns of the Hall transversely is a number. The merchants of every section of the trade congregate in a fixed spot to do business, and by means of this cross-system of reference are easily located. Another custom is that all contracts are made verbally, and it is to the great credit of the industry that the repudiation of a bargain is almost unknown, though in many cases no written contract is subsequently made.

Illustrations.

MANCHESTER ROYAL EXCHANGE. Bradshaw Gass and Hope, FF.R.I.B.A., Architects. From a Drawing by Frank L. Emanuel.

(See pp. 245, 246, 250, 251.)

Notes and Comments.

The University of London and Holland Park.

A meeting of the Senate of the University of London was held on the 19th inst., the Vice-Chancellor (Sir Sydney Russell-Wells, M.D.) being in the chair. The Senate took into consideration a communication received from the Clerk of the London County Council asking the Board of Education and the Senate to explore the possibilities of the Holland Park site for the new University building, before further action is taken on the Bloomsbury proposal. It was eventually resolved to request the Vice-Chancellor to send the following reply:

"In reply to your letter, I am requested to say that, before accepting the offer by the Government of the site for University purposes in Bloomsbury, the Senate laid the matter before the Council and received an assurance that, in the event of the University accepting that site, your Council would be prepared, under certain conditions, to consider a contribution which shall not exceed one-third of the contribution made by the Government in respect of expenditure not exceeding one million pounds. With this degree of approval of the Bloomsbury site on the part of the educational authority for London, the Senate felt justified in proceeding to accept the Government's offer on terms already communicated to you. The contracts for sale of the property were completed in January 1921, and the actual conveyance to the Commissioners of the Office of Works is dated March 23, 1921. Moreover, a portion of the site is already occupied by a University building, the Institute of Historical Research, which has been presented by an anonymous donor to the University at a cost of about £20,000, and has been accepted by the Senate. Under these circumstances the question of site can hardly be reopened with the Government on the initiative of the Senate, but should His Majesty's Government wish to explore the possibilities of the Holland Park site or any other site in conjunction with the University, the Senate would be prepared to co-operate with the Government for that purpose."

We could never quite understand why the Government were so insistent on the selection of the Bloomsbury site, but the University were as a matter of fact practically dragooned into giving acquiescence. But the University accepted the offer on the understanding that the London County Council would consider the grant of a million pounds towards the cost of the erection of new buildings, and the new School of Historical Research has been erected in Malet Street out of funds given by an unknown benefactor, so that a small beginning has actually been made. The whole incident is an illustration of the danger of pushing people to make a decision on certain lines before they are really convinced, and from all we have heard the consent of the University was similar to that accorded to an ultimatum, from the dictation of those with whom they had no means of contending. It certainly cannot be said that the Senate accepted the Government's offer with enthusiasm.

Guilds in Industry.

A conference of all the trade unions in the London area was held recently to discuss the extension of the principle of national guilds and industrial control. Mr. Malcolm Stark, who is nothing if not aggressive, said

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that "a guild was an organisation with labour in control and capital in subjection. If capital were required, it was hired in the same way that tools were hired." If Mr. Stark stopped to think he might come to the eminently sane conclusion that tools could be hired at a price which made it profitable to hire them, and capital now and always has been at the disposal of anyone who was willing to pay the capitalist a certain return for it in the shape of interest, and who had sufficient security to offer for the payment of such interest. Mr. Purcell, of the National Amalgamated Furnishing Trades Association, is a saner individual, and told the meeting, in answer to the suggestion that capitalists would prevent the guilds from obtaining material, "that rather than showing a desire to oppose the guilds they were anxious to get hold of them, because the guilds were likely to pay for what they took." But it is a pity that Mr. Stark and some of his friends cannot be sent out to Russia, where they might study the results obtained from following out their mad and foolish proposals, which are quite impracticable.

Kirkcaldy and the Architectural Profession.

Kirkcaldy wants to erect a War Memorial, which unfortunately means dealing with those impossible people, architects. To please them Sir John Burnet was invited to assess a competition for designs. But Sir John Burnet, being an architect, showed himself to be "impossible," for he actually wanted the Committee to abide by his decision. More than this, he suggested that a fee of from 10 per cent. to 20 per cent. would be a right amount to pay an architect for such work. Bailie Gourlay pointed out that this would represent £600, which was absurd. Another assessor, Mr. Paterson, the President of the Scottish Society of Architects, is, on the suggestion of Sir John, to be asked to act, but Mr. T. Laing fails to see why the autocratic rules laid down by the Institute should be submitted to. He generously said that the Institute could compete if they liked to, but the Committee could dispense with an assessor, and do the work themselves. However, Mr. Paterson is to be given a last chance. Should he prove obdurate, we suppose the Committee will do without those impossible people, architects, and may even within their own borough find a monumental mason, who can put them up a really tasteful memorial, letting the Councillors choose it, and finishing it in polished Aberdeen granite, with a neat gilded cast-iron railing round it, and an inscription stating that it represents native talent, and is the best that Kirkcaldy can give.

A Canal as a Road.

Mr. C. P. Markham has suggested a scheme for filling in a length of the disused Chesterfield and Stockwith Canal and constructing a new arterial road, a proposal which has been discussed by the local authorities concerned.

The proposal is to afford work for the unemployed in North-East Derbyshire, and by filling in the canal for eleven miles a dead-level road will be substituted for the present winding and hilly one. With regard to the bridges over the canal, most of which would have to be reconstructed, it is pointed out that they are too old and insecure to take heavy loads, and would in any case have to be rebuilt sooner or later. The material for filling in could be obtained from the dumps of adjoining works. The scheme, which has the approval of the Rotherham Council, appears to be a good and useful one, and may afford a useful precedent which might with advantage be followed elsewhere.

Creepers on Buildings.

Sir Thomas Jackson, writing to the "Times," emphasises the damage done to buildings by creepers, especially ivy and Virginia creeper, while such plants as wallflowers and pellitory will pull masonry to pieces. He adds that buildings need not be left bare, as roses, jessamine, wistaria, and hundreds of other climbing plants may be used without detriment to buildings. He does not sufficiently emphasise what we feel, that in a majority and not a minority of cases the covering of buildings with vegetation is not only harmful but disfiguring. It may on æsthetic grounds be justified if we wish to hide what is an eyesore, but nothing can be more unsightly than a good building metamorphosised with heavy growths of ivy or other plants, and it is only those who are completely insensitive to beauty in the form of structure who can defend such practices. Fortunately, there is in this respect a change of opinion, though at present it has been chiefly brought about by the emphasis laid on the damage done rather than from æsthetic dislike of the results produced.

Forthcoming Events.

Monday, October 31.—The Architectural Association.—Meeting at 34-35 Bedford Square, W.C. Presidential Address by Mr. W. G. Newton, M.A., A.R.I.B.A. 7.30 p.m.

Tuesday, November 1.—Liverpool Architectural Association.—Meeting at 13 Harrington Street, Liverpool. Paper by Professor C. H. Reilly, M.A., F.R.I.B.A., entitled "Architecture and National Taste." 6 p.m.

— Institution of Civil Engineers.—Meeting at Great George Street, Westminster, S.W. Presidential Address by Mr. W. Barton Worthington. 6 p.m.

Wednesday, November 2.—Institution of Sanitary Engineers.—Annual Dinner at the Holborn Restaurant, W.C. 7.30 p.m.

— St. Paul's Ecclesiological Society.—Meeting at 7 St. Andrew's Street, Holborn Circus, E.C. Paper by Mr. Cecil T. Davis entitled "Ecclesiastical Buildings in Wandsworth." 8 p.m.

Friday, November 4.—Town Planning Institute.—Meeting at 92 Victoria Street, Westminster, S.W. 1. Presidential Address by Mr. R. A. Reay-Nadin. 6 p.m.

— Royal Academy Ateliers.—Fancy Dress "Guy Fawkes" Ball at 9 Conduit Street, W. 9 p.m.

Monday, November 7.—Royal Institute of British Architects. Meeting at 9 Conduit Street, W. Presidential Address by Mr. Paul Waterhouse, M.A., F.S.A., F.R.I.B.A. 8.30 p.m.

The London House Builders' Association.

The London House Builders' Association has decided to hold an important Housing Conference in London early in December at which it is hoped representatives of those bodies who have had experience in housing will be present and that important resolutions will be passed respecting the position of private enterprise in dealing with the housing shortage.

It is now some three or four years since the various bodies who have professional and business experience in housing met and made proposals to the Government as to the national housing policy. The two outstanding conferences were that convened by the house builders and known as the National Conference on Housing after the War and that convened by the Surveyors' Institution, both these Conferences issued reports, the National Conference in the form of a substantial pamphlet and the Surveyors' Institution, in a concise and pointed series of recommendations. The London House Builders' Association believes that a similar conference would serve a good purpose at this juncture and expects to get an influential gathering to consider its recommendations for the revival of private enterprise in housing.

At an International Building Trades Conference, which opened in Brussels on the 20th inst., it was agreed, after a long discussion, that the limitation of hours of labour was prejudicial and did not take into account the needs of this industry.

Field-Marshal Lord Haig unveiled on the 21st inst. the memorial erected at Euston Station to the 3,719 men of the London and North-Western Railway Company who fell in the war. The memorial, which was dedicated by the Archbishop of Canterbury, is an obelisk 45 ft. high, with a Roman cross raised high on each side. On the base at each angle stand four bronze figures, representing the Navy, the Infantry, the Artillery, and the Flying Corps on guard with bowed heads and arms reversed. Mr. R. Wynn Owen, of the London and North-Western Railway Company, was the architect for the memorial, which was erected by Messrs. R. L. Boulton & Sons, of Cheltenham.

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The World of Art.

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The London galleries are particularly busy with exhibitions this and the next month. In New Bond Street Walker's Galleries have lately reopened with two separate displays of landscapes by Bassett Wilson, with flower pictures by Muriel G. Wilson, and water colours and pastels of the Riviera and Algiers by Vivian Guy; while a little further down Bond Street, at the corner of Grafton Street, in the Greatorex Galleries, the Surrey Art Circle is holding its annual exhibition. Leaving these, however, for the moment I wish to mention an interesting exhibition of drawings, paintings, and etchings by Alexander Walker, now on view at the Twenty-One Gallery in the Adelphi. Mr. Walker is a young artist (I believe I am right at least in saying that he is still under thirty), whose family comes from Cumberland, though he is himself now living at Debden in Essex, a delightful English village which forms the subject of three of his paintings here—"Debden Mill," "Debden," "The Debden Road"—not far, I believe, from where Mr. Clausen has his Essex home. Mr. Alexander has already exhibited etchings at the New English art exhibitions; and, in fact, his etchings are among the most interesting feature of his work now shown, notably the etching of "Herbert's Farm." This is not to say that his oil work here is without merit in such subjects as "The Stackyard" and "Autumn Landscape,"—very simplified in handling,—and shews fine colour in these and "Denison's House": his "Debden," mentioned above, and "Thaxted" are rather poor and inconclusive.

The "Little Art Rooms," also in Adelphi, seem to be specialising just now in Spencer Pryce's fine and powerful drawings and lithographs, of which they are now shewing some excellent examples. The coming exhibition for next month at the Burlington Galleries in Green Street will be of the work of the Belgian artist, Leon de Smet, whose masterly painting—his still life is admirable—has been seen in this Gallery before.

An exhibition this month at the Gieves Gallery in Old Bond Street of the paintings by Gordon Coutts deserves special mention. Mr. Gordon Coutts is an Australian artist, and was for some years Instructor of Painting to the Royal Art Society of New South Wales, painting at that time many portraits in Sydney. He was, however, originally a Glasgow man, and studied in that city before he went to Paris to work at "Julian's" school under Fleury and Lefebvre. We trace this training in his oil paintings here exhibited, in the ease and mastery of his figure work in such a painting as the "Bal de Quatz' Arts," with three girls dressing, or undressed, for this famous Bohemian festival. This painting won the silver medal at the Old Salon in 1912. Like the late Anders Zorn, Mr. Coutts has made frequent visits to the United States; he was, in fact, in San Francisco in 1906, and had the bad luck to lose all his work in the earthquake there. But now this artist seems to have come under the spell of Morocco, and some of the most interesting paintings here, all work of the last few years, take their subjects from Tangier. I refer particularly to such subjects as "Taking the bride home, Tangier," "At Twilight," "The Prayer" (a moonlight study), "The Coffee Stall, Tangier" (twilight again), and "A Merchant of Tangier," mounted on his donkey on those golden sands against the blue sea. The artist has been specially successful in these elusive and difficult twilight scenes. Knowing Tangier and its wonderful Oriental charm I can appreciate this success. In portrait work he shows his "Gerta Russell" and a lady artist "In the Studio," whom I find to be the same sitter.

At James Connell's Gallery in Old Bond Street another Glasgow man, Mr. W. A. Gibson, is exhibiting some fifteen paintings which are delightful in their cool silver-grey tonality. Their subjects are taken from France and Holland; and good examples are "Dutch Barges," "A Reach of the Loir" [*sic*], which is one of the best, and "On the Loir." Mr. Gibson's art is known north of Tweed; but I understand this is the first time he has given an individual show in London.

The exhibition of paintings by Sir John and Lady Lavery, which has just opened at the Alpine Club Gallery, is the occasion for Mr. Winston Churchill's appearance as an art critic. "Here"—the Minister remarks—"is Lady Lavery making her first appearance. I will not call her a dark horse, but she is certainly a surprise. She has gifts and graces of her own, which it would have been a pity to hide beneath the bushel of her husband's fame."

"The Studio" announce as a companion volume to the work on Anders Zorn, lately published, a book on the etchings of Charles Meryon, with an introduction by Mr. Campbell Dodgson, M.A., C.B.E., and numerous photogravure plates. Meryon, one of the greatest of French etchers, was born in Paris in November of 1821, so that this volume appropriately marks his centenary. The special winter number of "The Studio" will be on "British Water-colour Painting of To-day," with twenty-four plates in facsimile colours from the art of the same number of modern artists, among whom I may mention Anna Airy, Walter Bayes, Russell Flint, Brangwyn, Sargent, Orpen, Walcot—on the whole a very admirable selection. I am assured that no trouble will be spared to make these colour plates as perfect reproductions as is attainable.

The promised second volume of Mr. Kineton Parkes' "Sculpture of To-day," published by Chapman and Hall, has just appeared, in precisely the same form and price as the preceding volume, to which it makes a worthy and most valuable continuation. Our readers may recollect that the first volume treated Great Britain, America, and Japan in plastic art; this second volume takes the sculpture on the Continent of Europe, beginning with Spain. Here Mariano Benliure, Ignazio Pinazo, and Mateo Inurria find a place; and among the plates appears that beautiful female torso, which, under the title of "Forma," attracted such admiration in the recent exhibition of Spanish Art in Burlington House.

In the French school Antoine Bourdelle very properly claims an important place, and his "Pegasus," with its grand quality of line, appears as the frontispiece to this volume. "Bourdelle's principle"—says Mr. Parkes—"is that his architecture is for his sculpture and his sculpture for his architecture: the whole created and united by himself alone. In any system of education for the sculptor the science of architectonics is a most important part." I should like to underline this last sentence. The place taken in France by Bourdelle might be claimed in Belgium for Meunier, whom the author compares in his pictorial quality with our Alfred Stevens: in modern Belgian art Victor Rousseau, whose beautiful group of "The Adolescents" is here reproduced, claims also the front place given him in this work. Holland, Switzerland, Germany, Austria, Czecho-Slovakia, Denmark, and Norway, even Russia are not forgotten; and lastly I come to the Italians, whose sculpture, wisely fostered by their own Government, has such fine possibilities. I know this School fairly well, and wish to record my appreciation of the author's treatment in its main features. He gives seven pages to Medardo Rosso, then turns to Leonardo Bistolfi, that wonderful sculptor of death, whose "Mountain Peak" is reproduced, then comes from Piedmont to Lombardy with Ernesto Bazzaro, and south to Rome, to find that noble craftsman, classic in the best sense, Angiolo Zanelli, in the reliefs of the Victor Emanuel Monument; then touches Apolloni, Fontama, Dazzi (whom one would have liked to see illustrated), Sciortino, and others. The plates throughout are well selected and useful.

An interesting gift to our National Gallery is the pastel portrait, by Jean Baptiste Peronneau, recently presented by Sir Joseph Duveen.

S. B.

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A New Use for England's Ancestral Homes.

By the Hon. Lady Whitehead.

Week by week more and more magnificent mansions of all sorts and sizes find their way into the market. We are regaled with particulars that make us marvel how money was ever found for the upkeep of such palaces, or Petit-Trianon-like perfections, in the past, and we ask ourselves what will be the effect on the next generation of the passing of the great houses.

Surely these haunts of ancient peace, these historic buildings, set ofttimes in no less historic gardens and pleasure grounds, should not be allowed to fall into the hands of the housebreakers, the treasures of their museum-like rooms and picture-galleries should not be dispersed throughout Europe or to the other side of the Atlantic, their gardens be leased to the ubiquitous market-gardener, and their smooth tennis-lawns, croquet-lawns, bowling-alleys, and, maybe, even cricket pitches be allowed to become hayfields. That would indeed appear a piteous waste of centuries of labour and loving care.

One noble duke after another has taken us into his confidence, and we realise most fully that the days are indeed gone by when establishments on a princely scale, able to cope with such inherited glories as we have described above, can be maintained by private owners. Taxes, super-taxes, and death-duties all alike combine to prevent this, and therefore, one by one, the old country places, great and small, which were once the pride and joy of England, are being broken up.

There is one way, and one alone, in which they could be saved and made once more abundantly useful to all classes of the nation.

Let many companies be formed, and let each one buy up an ancestral home. It shall no longer be the joy and pride of one family, but of many. The mansion-house itself should be preserved intact, and become the local museum, art treasure house, and centre of culture for the whole district. Its vast hall should resound with the best music, and simple dramas could be given there also. Its dining-room should be arranged so that meals could be served for the bachelors who would make their homes in its beautiful guest-rooms. Dotted about all round the pleasure grounds, small houses would spring up, the inhabitants of which would have a tiny strip of garden of their own, but would share all the other pleasure-grounds with their neighbours.

Think what a paradise would be thus created for the young married couples who strive so hard now to find a roof to cover them! Think of the perambulators standing under the cool shade of the ancestral trees, the young children playing together on the smooth old lawns; think of the nursery school to which the young mothers could lead their little ones in the mansion-house close by; think of the saving of work and worry such a co-operation would bring about. Think of the tired young husbands returning in the evening from their work in the big town near by, and able to fling themselves at once into their flannels and enjoy their game of tennis or cricket or their row on the lake in their own homes. This would indeed be a garden city, and those who were privileged to live in it would gather strength and courage for the daily wrestle with life from the thought of the lives that that old home had sent forth for centuries to gain fame and honour in the good days of old.

Here would be no miserable newly planted garden. The capable man in charge of the wonderful old walled gardens would supply the vegetables and fruits for each little household at a fair price. The home farm would do the same with the eggs and butter and milk, not to speak of chickens and ducks and other farmyard produce.

Each mansion would be administered by a club secretary, who would, of course, be a disabled warrior, who, with his family, would have his set of rooms in the mansion-house. There would be garages and stables, and he would keep a register of requirements, so that no trouble should arise about who should have first choice of the tennis courts or croquet lawns.

If only we could get our dear old England really to take on the idea of co-operation, our young people might again be able to marry on the same incomes which were considered sufficient for their parents, and which has become impossible under the new system of taxation and high prices. They could each have their own little home, for we know that unless the old adage "An Englishman's house is his castle" is respected he will cease to be a true Englishman. He will no longer be afraid that his wife will become a mere household drudge, for one neat maid will be able to do all the work of the modern labour-saving little home. They will not be afraid to have children, knowing that a healthy country life is secured for their upbringing and holidays.

Gradually, no doubt, friends would combine to have their homes under the shadow of the same mansion, thus securing society for themselves and their children—simple dances could take place in the mansion. An electric tram would run to the nearest town. But it is needless to set forth all the details of such a plan, the advantages will be obvious to anyone who will study the matter. And our cousins on the other side of the Atlantic will read this article with an amused smile, and say: "Well, I reckon someone's been telling them about our country clubs, but I will allow this beats them all to fits; they have got the mansion-house and yards and sports grounds all ready fixed, and have only got to put in the electric light and a bit of plumbing!"

"The Architect" Fifty Years Ago.

October 28, 1871.

Cities made to Order.

A new industry occupied the enterprise of Chicago, which was no less than the manufacture of cities, or ready-made houses, on a large scale. The enterprise has already proved highly successful, and will no doubt, at the present time, be a ready means of habitation. At South Chicago recently were found three of the cars of the Union Pacific Railroad loaded with four complete two-storey dwellings, containing seven rooms each, with partitions, stairs, doors, windows, sash and casing, roofs and trimmings for doors complete, and which were in perfect condition for occupancy in two hours after being unloaded from the cars. This was the first shipment of an order for 200 dwellings to be fitted by the South Chicago Building Company. The buildings are constructed under a patent, and furnished in every variety at prices that are lower than any other buildings now used for the accommodation of population in newly-settled localities. Ready-made houses, although a new enterprise in Chicago, and certainly a new item of railroad freight, are by no means a novelty on that continent. The writer of this article lived, in 1858, in San Francisco, in a house of two storeys and eight rooms, fitted with all the appointments and all the modern conveniences of that day, which was built entirely in sections, roof and all, and constructed by hooks and staples and bolts. A drier or more comfortable house could not be desired. Many such houses were in use at that time in California, and came from Boston, where they were made and shipped to California *viâ* Cape Horn. Corrugated iron-houses, with a light balloon frame of angle iron, to which the sheathing of galvanised and corrugated plate was fastened by bolts and nuts, were also common at that date in San Francisco, but were objectionable for dwellings on account of heat, and of noise in the rainy season from the falling of the rain on the iron-roof. Of course, when properly finished with non-conducting material inside, these objections would be obviated. Nor is the enterprise of the Chicago Building Company yet up to the patient industry of the Chinese. In the summer of 1862-63 there was erected in San Francisco, for Mr. John Parrott, a very large and massive three-storey stone building, occupied, when finished, by the well-known banking firm of Page, Bacon & Co., of that day. The whole of this building, stone by stone, had been made and erected in China, taken down, shipped to California, and was there re-erected entirely by Chinese masons, carpenters and builders. The building probably to-day is an evidence of Chinese skill in that line.

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Manchester Royal Exchange.

(See Inset Illustrations.)

The Manchester Royal Exchange, which was opened by His Majesty the King, occupies an island site, 8,222 yards square, or 1.7 acres in extent, in the centre of the business part of the City of Manchester, and bounded by Market Street, Cross Street, Bank Street, St. Ann's Square, and Exchange Street.

The architectural treatment both of the exterior and interior presented a difficult problem, as is always the case when an existing building has to be remodelled to form part of a larger structure. In such cases the architect is seldom able to completely realise his own aims, and considering the difficulties of the problem of the Manchester Royal Exchange, Messrs. Bradshaw Gass & Hope, FF.R.I.B.A., have achieved a marked success.

The Exterior.—The ground-floor frontages to streets are occupied by shops, and are treated with rusticated stone piers to form a base of suitable strength. Above this rises the Corinthian order which forms the main feature of the elevations and corresponds with the position of the Exchange. Above the order is an attic storey crowned and enriched by an open balustrade, and the roof is covered with green slates.

The filling of the bays between the columns of the main order has been designed in its fenestration to give scale to the façades and to provide the maximum amount of light for business requirements. The lower part is treated with arches containing a small order, above which and immediately beneath the main entablature runs a series of grouped windows.

Advantage has been taken of the irregularities of the building lines to give the frontages to St. Ann's Square and Cross Street a slight curve throughout their length thus softening and improving the lines of the cornice and giving greater continuity to the whole design.

In the centre of the main fronts are placed the two principal entrances to the Exchange Hall. The more important of these—that on the St. Ann's Square side—is given fitting prominence, being approached through a spacious archway within which rises a flight of steps passing through a semi-circular stone vestibule over the order of which runs a balustraded balcony, the whole surmounted by a semi-dome. In addition to the two main entrances four subsidiary ones are provided with staircases and passenger lifts to give access to all parts of the building. The Clock Tower at the corner of Market Street and Exchange Street, so long a feature of the old Exchange and a landmark in the city, has been retained and embodied in the completed structure, and at the St. Ann's Square and Bank Street end of the building is balanced by a curved cornice treatment crowned by a dome.

The Interior.—The Exchange occupies practically the entire extent of the site on the first floor with the exception of the space required for walls and staircases, its chief dimensions being length 310 feet and width 215 feet.

The Corinthian order, which was a feature of the interior of the older Hall, has been retained and reproduced in the extension, but all the remaining detail and ornament have been redesigned and remodelled to bring them into proportion and harmony with the increased scale of the interior.

Above this Corinthian order runs an attic storey, having at either side of the Hall a series of clerestory windows, leading up to the enriched plaster ceiling surmounted by two large and four smaller glazed domes (the former having a diameter of 62 feet). The pinnacles of the lanterns rise to a height of 130 feet above the street level.

The handsome and massive columns and piers in the old Exchange are in Irish marbles of various tints of red and grey. Owing to the lapse of time since these were quarried it was impossible to obtain marble to match in colour. The whole of the new columns and piers have been made in Scagliola Marble by Messrs. Bellman, Ivey, and Carter, Limited, of Linhope Street, London, W., and copy the old work with remarkable success. Scagliola Marble, a process which dates back from the days of Pompeii, has been manufactured by this firm for the last 120 years, and is fixed in many of the most important buildings of the United Kingdom. A distinctive feature of the interior treatment of the Exchange is its central colonnade, with groups of piers and detached columns, each twenty-seven feet high, and three feet four inches diameter in the shafts alone. The Scagliola Marble is fixed around re-inforced concrete cores. Messrs. Bellman, Ivey, and Carter also carried out the restoration of the old marble work.

The Exchange Administrative Office, Board Room, and Master's Room are arranged "en suite" with the Hall from which they are readily accessible for all purposes. They occupy the Bank Street—St. Ann's Square corner of the building.

In addition to the Large Hall other rooms are devoted to the use of members, and these include a large reading-room with adjacent smoking balcony, cloak-rooms, ample and convenient lavatory accommodation, and a telephone department containing an installation of fifty-three lines. There is also in service a private wire from this Exchange to the Liverpool Cotton Exchange, on which is installed a telewriter system, giving throughout the day the quotations on the Liverpool Cotton Market, these quotations being immediately posted on the two cotton market report boards, each 62 feet long by 9 feet high, fixed in the Exchange Hall at a height of 45 feet above the floor level and visible from all parts of the floor.

Column printers (tickers) for the receipt of telegraphic news, market and otherwise, are installed, and special telegraph facilities provided, through which some 20,000 telegrams are received and dispatched annually.

General Accommodation.—In addition to the Exchange and premises above mentioned, around the Great Hall are ranged some 250 offices connected by corridors with adequate lift service, these suites for the most part being occupied by business firms whose work is closely connected with the Exchange. The offices of cable companies and postal services occupy convenient positions on the main floor. There are also thirty-eight business premises on the street frontages occupied by a variety of trades. Within the building are housed the Manchester Chamber of Commerce Testing House, the Trade Marks Department of the Board of Trade, the offices of the Wallpaper Manufacturers, Ltd., the Federation of Master Cotton Spinners, the British Cotton Growing Association, the Manchester Corporation Commercial Library, and other firms and institutions, all having interests very closely associated with the businesses which find accommodation in the Exchange. There is also a branch post office.

In accordance with the conditions imposed by the Act of Parliament, an arcade for foot passengers is formed through the building under the Exchange Hall, but at street level, to replace the old Bank Street, closed by the extensions. Shops are placed on either side of this arcade, and opening from it and also having access to St. Ann's Square, Bank Street and Cross Street are the spacious restaurant premises of the "Manchester Limited," with three lunch bars, a smoke-room, and billiard-room all on the ground-floor level, and ventilated kitchen.

The basements of the Exchange, which are two storeys deep below the street level and hewn out of the solid sand-stone at the bottom, are utilised for storage accommodation of an important character, with ample provision of goods lifts, and to these basements access for motor and horse-drawn wagons is provided by a powerful hydraulic hoist from the street, connecting to a central cartway traversing the premises at the lowest level.

Construction.—Externally the buildings are faced with Darley Dale stone on all frontages, the roof slopes

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covered with Westmorland green slates, and the domes formed of patent glazing with lead-clothed steer bars and reinforced glass. The new work throughout is entirely of fireproof construction, constructional steel and reinforced concrete being used for the framework and floor formation.

When the building was first started it was arranged that structural steelwork should be used throughout, but owing to the difficulties created by the war the Trussed Concrete Steel Co., Ltd., were then consulted to determine whether it was possible to finish the building with a reinforced concrete skeleton, in face of the fact that certain portions of the skeleton had already been constructed with structural steelwork. The company advised that this alteration could take place, and although many difficulties were involved in connecting the reinforced concrete skeleton with the various portions of the structural steel skeleton, the problems were, nevertheless, solved, and as a result the entire superstructure including the skeleton and all the floors is now constructed of reinforced concrete on the Kahn system. The detail drawings for the reinforced concrete work were prepared by the Trussed Concrete Steel Co., Ltd., and were executed by Messrs. Stuart's Granolithic Co., Ltd.

Fibrous plaster is largely used in the interior finishings, ceiling and wall panels, mouldings and ornament.

The floor of the Exchange itself is covered with maple wood blocks enclosed in wide margins of walnut.

The complete installation of lifts will include eight electric passenger lifts to serve from the various entrances to the upper floors of the building, and are arranged in pairs for giving continuous service. The lifts installed are by Messrs. Smith, Major & Stevens, Ltd., London, Manchester and Northampton, and are of the latest type, each having a lifting capacity of six persons at a speed of 200 f.p.m., and ascending to heights varying from 75 to 100 feet. Each car is suspended through the medium of a gravity type safety gear, for arresting fall of the car by the automatic gripping of the steel guides immediately upon the stretching and before the breaking of any one rope, thus giving warning of approaching failure of the ropes. The type of safety gear as fitted holds a record of complete immunity from failure. The lifts are of British construction throughout, being manufactured and erected by Messrs. Smith, Major & Stevens, Ltd.

The amenities of a great building of this kind are carefully provided for, and the lighting, heating, and ventilating systems have been closely considered so as to give the best possible results.

The ventilation of so large a space is a matter of the greatest importance, and as arranged on the Plenum system, will provide an ample supply of air which can be purified and screened as required.

The great importance of the building, its immense size, and the varied functions which it is called upon to fulfil, rendered the problem of heating and ventilation one of great complexity, making it necessary in the first instance to ensure that the systems adopted should be those best suited to the particular needs of each part; consequently the building was considered as two separate problems—the Exchange Hall as one, and the tenanted portions around and under the hall as a separate group. The heating, ventilating, and hot-water services were designed and completed by Messrs. James Cormack & Sons, 36 Abercorn Street, Glasgow.

The medium chosen for the heating system was steam at atmospheric pressure, supplied through reducing valves from steam at 80 lb. pressure generated by two marine-type boilers placed in the sub-basement, each capable of evaporating 6,000 lb. of water per hour. To ensure a rapid and silent circulation a vacuum of 10 inches is created throughout the system by a vacuum pump, which is automatic in action. This pump also removes the condensation from the system, and returns it to the boilers at a temperature of 170°, thus effecting economy both in fuel and labour.

For the Exchange Hall, which has nearly 1¾ acres of floor accommodation, and where the heating and ventilation are both of great importance, it was decided to adopt the Plenum system of ventilating.

The plant for this purpose consists of air washers, powerful heating batteries, and fans, installed on the third and fourth floors of the building on the Cross Street front.

The two centrifugal inlet fans deliver into the hall 120,000 cubic feet of air per minute. Before reaching the fans this air is drawn through eliminators or air washers; first through a spray chamber, where it passes sheets of water, having a combination rain and spray effect, thence to the eliminator chamber, where the free or unevaporated moisture is absolutely removed. Each baffle of the eliminator is independently drained, and there is no possibility of water and impurities, once deposited, being taken up again. Ninety-eight per cent. of the dust and dirt is removed, and the air enters the hall pure and fresh. During hot weather the temperature of the air is lowered by contact with the water, thus keeping the hall cool and comfortable, whilst in cold weather the heating batteries are brought into action for warming purposes.

From the washers the air passes through these heating batteries to the fans, enters the hall at the ceiling at a suitable temperature, and is extracted from floor level by two exhaust fans in the sub-basement and discharges to atmosphere at roof level.

This system is stated to be capable of entirely changing the enormous volume of air in the hall one and a-half times per hour, and the fans can be run either separately or together at any desired speed.

The restaurant, café, and billiard-room are treated in the same manner as the main hall, but with separate plants, as these are occupied when the hall is not being used.

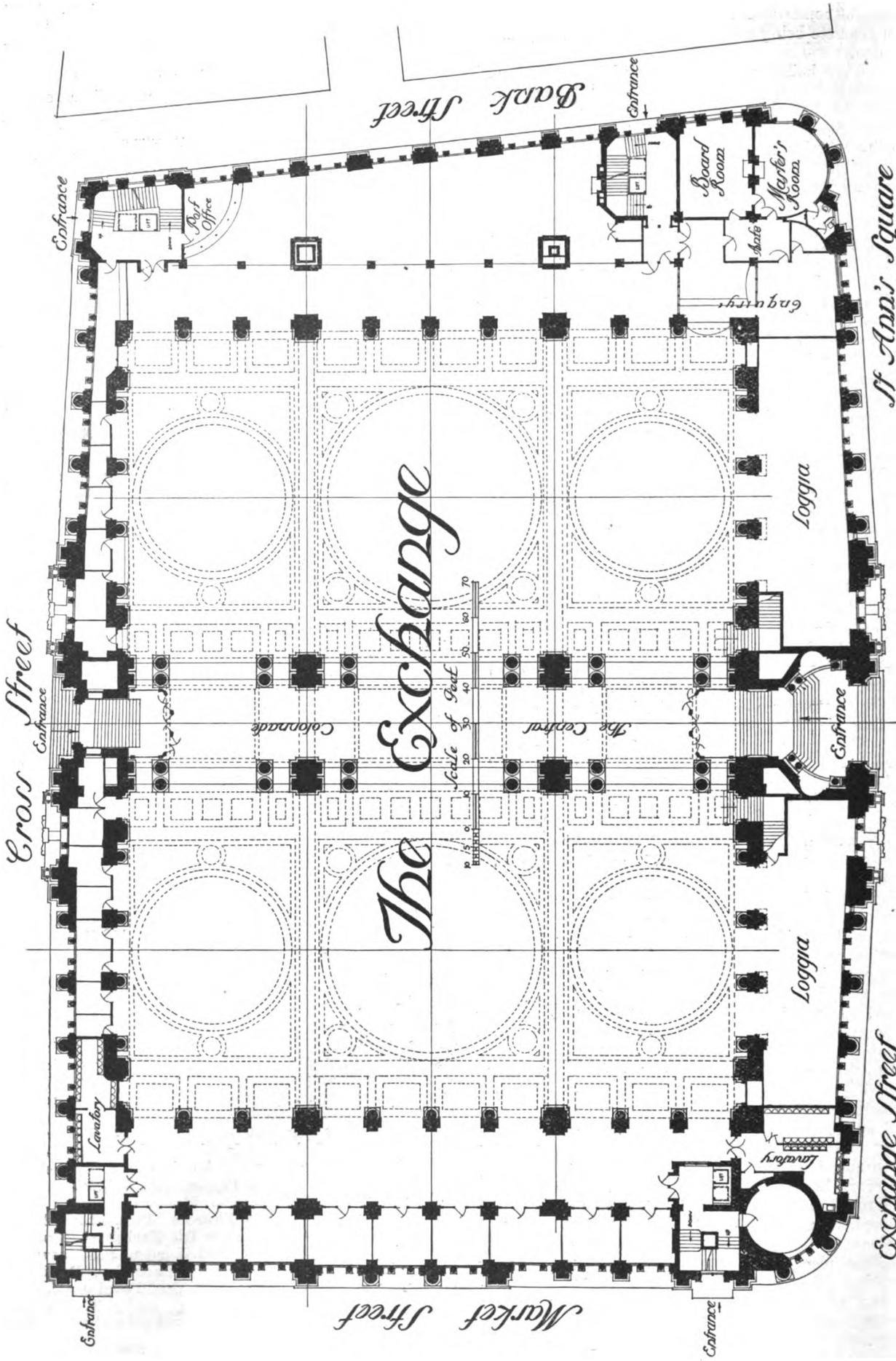
The surrounding offices, &c., are heated by radiators, and are ventilated, each tenant having complete control over the heating and ventilation of his own premises.

The following contractors have been engaged on the reconstruction:—

William Thornton & Sons, 38 Wellington Road, Toxteth Park, Liverpool, general contractor for superstructure; William Cornall & Sons, Ltd., Bolton, demolition of old building and foundations to new extension; J. Jaffrey & Co., Manchester, plumbing; J. Tanner & Son, Liverpool, plastering and decorating; Stuart's Granolithic Co., Ltd., 63 Lincoln's Inn Fields, W.C. 2, reinforced concrete; James Gibbons, St. John's Works, Wolverhampton, locks and door furniture; Redpath, Brown & Co., Ltd., Trafford Park, Manchester, steelwork; Henry Hope & Sons, Ltd., Smethwick, Birmingham, patent glazing; Shanks & Co., Ltd., Manchester, sanitary fittings; James Cormack & Sons, Ltd., 36 Abercorn Street, Glasgow, heating and ventilating; John Collier & Co., Manchester, electric lighting; Bellman, Ivey & Carter, Ltd., Linhope Street, N.W. 1, scagliola marble; C. W. Williams & Co., Manchester, tiling; Fenning & Co., Ltd., Palace Wharf, Hammersmith, W 6, marble; Hollis Brothers & Co., Ltd., Hull, wood block flooring; Earp, Hobbs & Miller, Manchester, carving; Smith, Major & Stevens, Ltd., Abbey Works, Northampton, electric lifts; J. Shaw & Sons (Salford), Ltd., hydraulic lifts; Arthur Wardle, Manchester, decoration of board room and master's room; Thomas Scott & Co., Manchester, cotton report board, post office telegraph screens, calculating slabs, &c.; T. Faldo & Co., Ltd., Windsor House, Kingsway, London, W.C. 2, asphalte roofing; John Faulkner, Manchester, lightning conductor; W. J. Pearce, Ltd., Wilmslow, leaded lights; Kendal, Milne & Co., Manchester, reading-room seating; Siegwart Fireproof Floor Co., Ltd., Thanet House, 231 Strand, W.C. 2, floor slabs to Old Exchange; Thaddeus, Hyatt & Co., 9 Farringdon Road, London, E.C., pavement lights; MacFarlane & Co., Saracen Foundry, Possilpark, Glasgow, cast-iron balusters; Hart, Son, Peard & Co., Ltd., 28 Berners Street, W. 1, art metal work; T. Weighill, Liverpool, telephone boxes; Underwood (Manchester), Ltd., Manchester, electric light fittings.

Messrs. G. E. Wallis & Sons, Ltd., Broadmead Works, Maidstone, have been given the contract for the erection of the R.E. War Memorial at Chatham. Their tender for the erection, excluding excavation of foundation and sculptural work, was £6,894.

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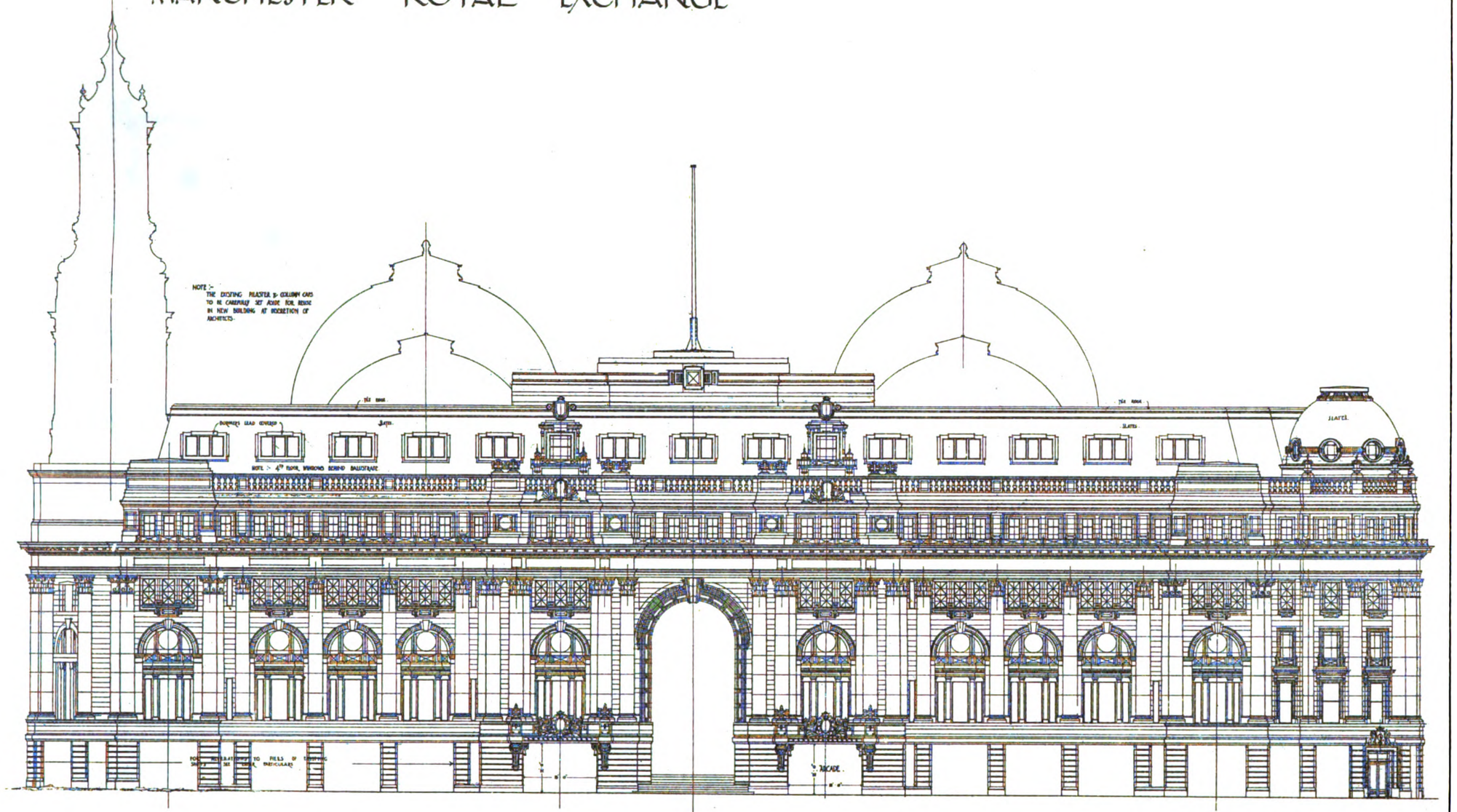


PLAN OF MANCHESTER ROYAL EXCHANGE. BRADSHAW GASS AND HOPE, Architects.

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MANCHESTER ROYAL EXCHANGE



ELEVATION TO ST ANN'S SQ.

DRAWING No. 14
DRAWN BY.
TRACED BY.
EXAMINED BY.
APPROVED BY.
DATE.

BRADSHAW · GASS · & HOPE
ARCHITECTS · & SURVEYORS
BOLTON · & LONDON ·

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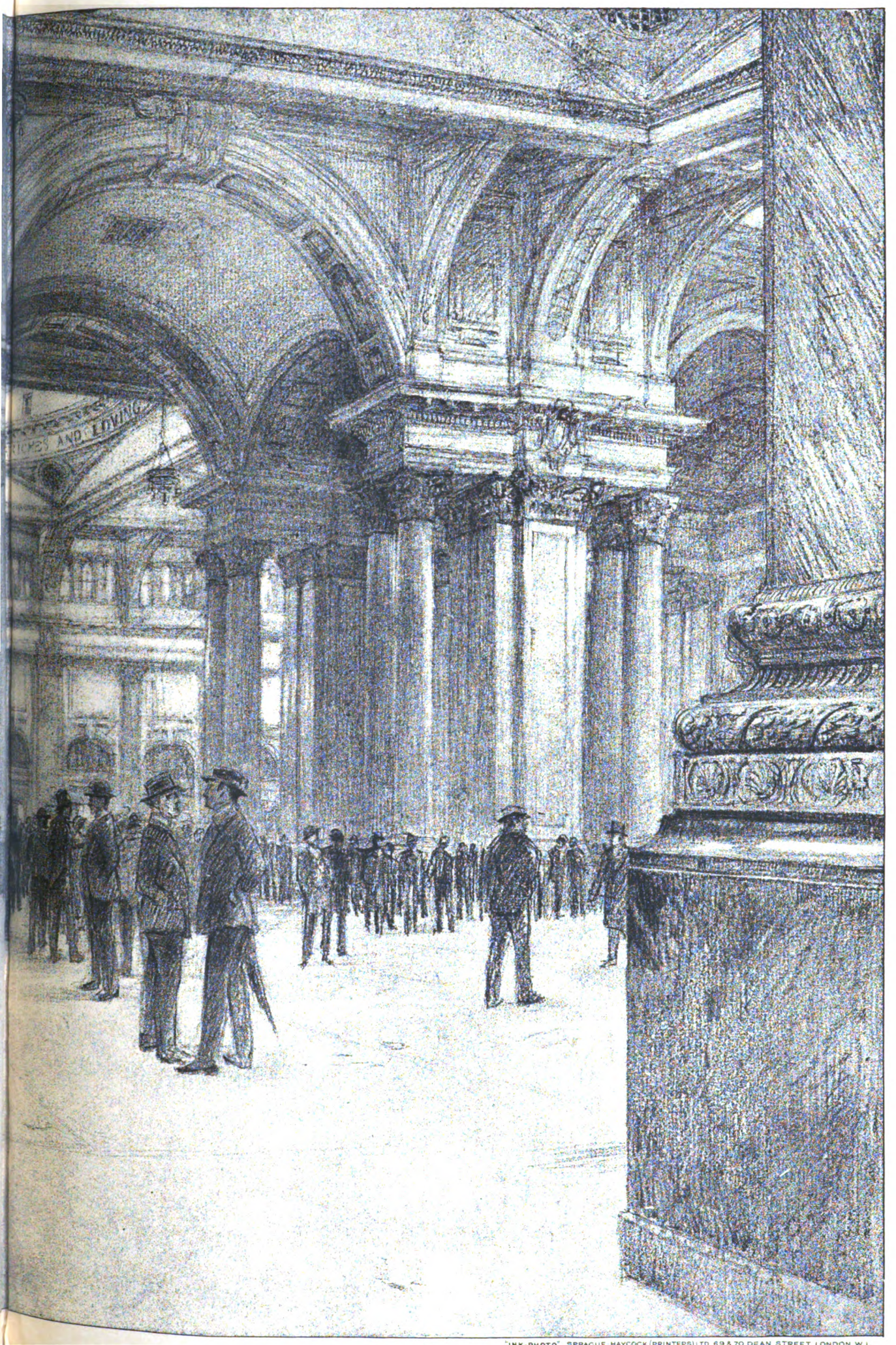
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MANCHESTER ROYAL
BRADSHAW GA
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CHANGE: THE INTERIOR.
. HOPE, ARCHITECTS.
RANK L. EMANUEL.

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MANCHESTER ROYAL EXCHANGE: EXTERIOR VIEW SHOWING MAIN ENTRANCE.

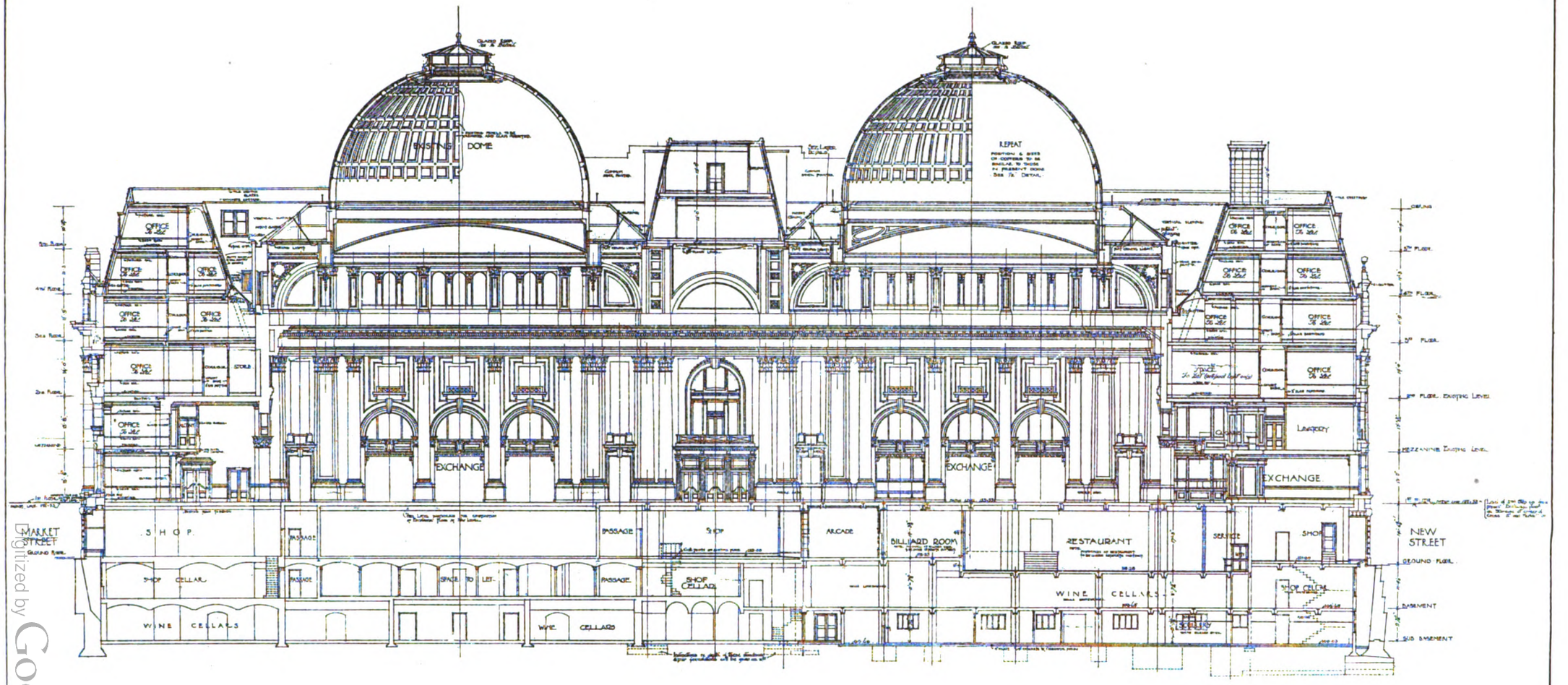
BRADSHAW GASS & HOPE, ARCHITECTS.

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MANCHESTER ROYAL EXCHANGE.



SECTION A-A.

BRADSHAW GASS & HOPE
ARCHITECTS & SURVEYORS
BOLTON & LONDON

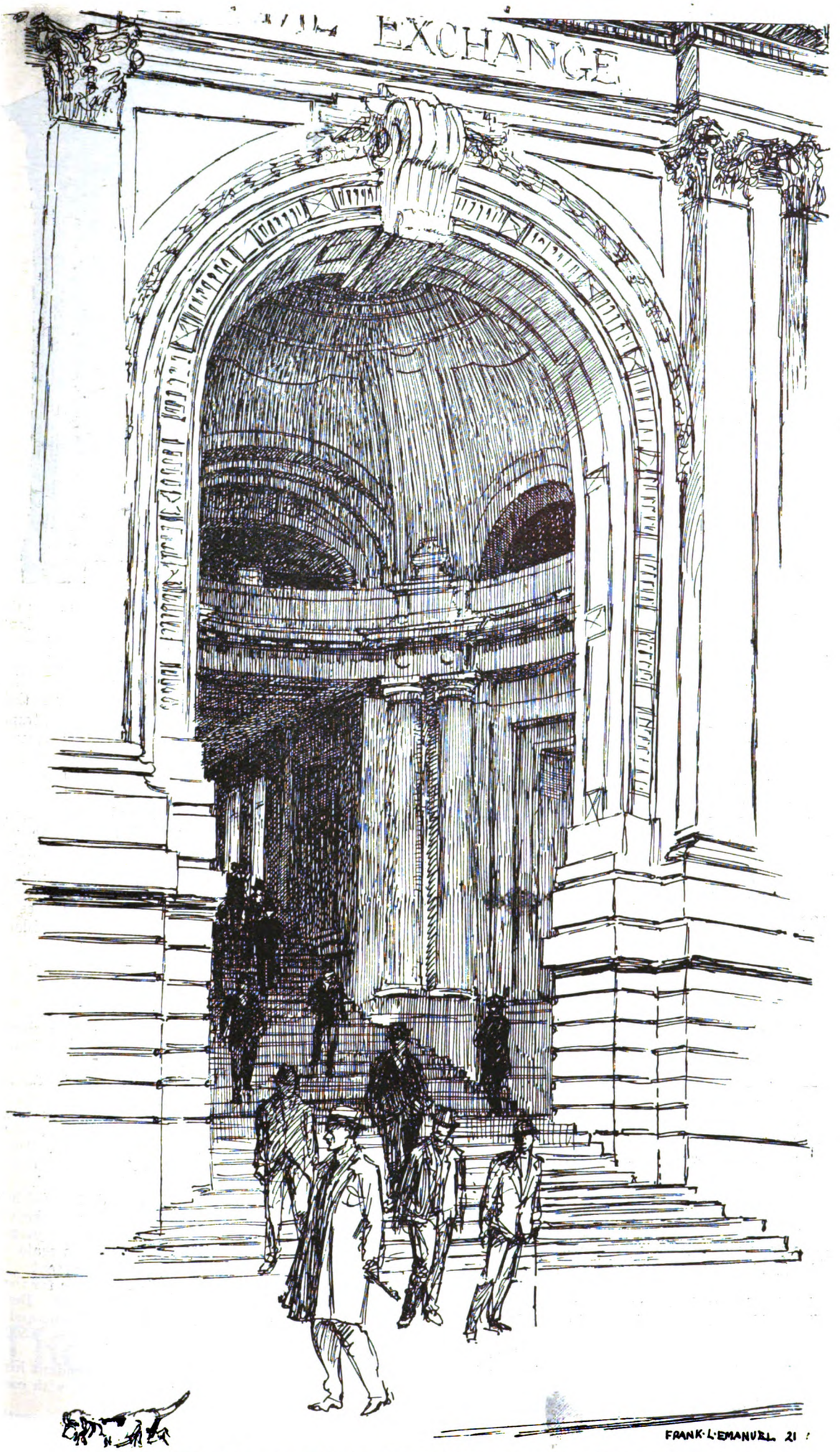
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MANCHESTER ROYAL EXCHANGE.

BRADSHAW GASS & HOPE, ARCHITECTS.

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MANCHESTER ROYAL EXCHANGE: MAIN ENTRANCE IN EXCHANGE STREET.
BRADSHAW GASS AND HOPE, Architects. From a Drawing by FRANK L. EMANUEL.

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The L.C.C. Housing Schemes.

Reviewing the work of the Council for the year ending March 31 last, the Chairman, Major P. C. Simmons, at this week's meeting of the London County Council, said the constructional work on the Becontree housing estate of about 2,800 acres had been entrusted to one contractor, and the Council had voted £5,000,000 as a first instalment of the cost. At the suggestion of the Minister of Health, operations would for a time be confined to the first section of the estate, mostly in the Ilford district, comprising nearly 3,000 houses.

By the end of the year upwards of 6,000 workmen were engaged on the various contracts, nearly 400 houses had been completed, and about 2,200 others, in addition to two blocks of tenement buildings, were in various stages of construction.

As part of the approved scheme for the improvement of housing conditions in London, the Council had also put forward proposals for the clearance and reconstruction of three slum areas, comprising about 15 acres. The powers temporarily conferred upon the Council of prohibiting the erection of buildings likely to interfere, by the use of essential materials, with the provision of houses and the demolition of habitable houses, had been discreetly and efficiently exercised through the Special Building Control Committee. Out of thirty appeals against their decisions, only seven were successful.

Tabard Street Area.

In presenting a report stating that it had been decided to proceed with the erection of the fourth section of dwellings on the Tabard Garden Estate and that, subject to the approval of the Minister of Health, they proposed to accept a tender amounting to £29,302, the Housing Committee pointed out that the tender provided for "an adjustment of prices according to variations in the recognised rates of wages."

This reservation as to wages evoked a good deal of comment, the gist of which was that, unless a similar clause were inserted as to cost of materials, the contractors were receiving a benefit which was unfairly withheld from the workmen.

Col. Fremantle, M.P., Chairman of the Housing Committee, replying on the discussion, said the Committee entirely agreed with the principle of an "up and down" clause for materials as well as wages, but the Departmental Committee on the High Cost of Building had recommended that the time had arrived when a "firm price tender" should be obtained for all such work. Following that suggestion, the prices now submitted by contractors showed a large reduction in the cost of building. In 1913 the cost per room for housing schemes undertaken by the Council was £84. In 1919 the price had risen to £264 per room. £400 per room was the price reached in 1920—over four times the pre-war cost. The cost of the present Tabard Street contract—approximately £268 per room—was comparable with the price obtaining two years ago, but was still more than three times the pre-war cost. He undertook to consider the suggestion that an up-and-down clause should in future contracts operate against the contractor in connection with price of materials.

The Colwyn Bay Council have been authorised by the Ministry of Health to erect a further twelve houses on the Church Road site, subject to satisfactory tenders being received.

The following figures show the progress that has been made in the State-aided housing schemes in Scotland up to September 30, 1921: permanent houses completed, 2,894; temporary houses completed, 604; reconstructed houses completed, 67; houses built under the private subsidy schemes, 888. In addition, there are 14,249 houses under construction, of which 2,202 are being built with the aid of the Government subsidy to private persons. The total amount paid out by the Scottish Board of Health in respect of the 888 houses completed with the aid of the Government subsidy to private persons is £215,113 6s. 8d.

A Memorial Tablet.



Two memorial tablets to the memory of the directors and employés of Messrs. Richard Johnson, Clapham & Morris, Ltd., and Messrs. Johnson's Reinforced Concrete Engineering Co., Ltd., Lever Street, Manchester, have recently been erected in the entrance hall of the head offices, Lever Street, Manchester. At the same time the opportunity was taken to panel the entrance hall in wainscot-oak panelling, the memorials forming part of the scheme and fixed one on either side.

The memorials, of which we here illustrate one, are designed in the Greek Ionic style, with projecting columns with pilasters behind and surmounted with frieze, cornice, and pediment. A brass plate with inscription is fixed on a raised panel, the whole being carried on carved-oak corbels fixed into the wall.

The work was designed by Mr. A. Clayton, M.S.A., of Duchy Chambers, Clarence Street, Manchester, and executed by Messrs. Heighway & Silver, Blackfriars Street, Manchester.

A Claim for Fees.

In the King's Bench Division on Monday, Mr. Justice Rowlatt heard an action brought by John Carrick Stuart Soutar, architect, of "Wyldes," North End, Hampstead Garden Suburb, who claimed £129 16s. 6d. for work done for Arthur Alfred William Avery, 32 Woodlands Avenue, Wanstead.

Plaintiff in his evidence said that in addition to working as an architect he was the agents of the Hampstead Garden Suburb in the letting of certain building plots. Defendant came to see a plot on February 22, 1921, and negotiated with him for the purchase of a certain piece of land. At the time Avery told him that should he decide to build he would employ witness as his architect. Ultimately he came to witness, and gave him instructions as for the preparation of specifications. Witness showed him the scale of professional charges, to which Avery gave his consent.

The work was done, and preparations made for the building of a house, which was to have cost £2,858. Defendant asked him if he could not bring the cost down, and plaintiff did further work in reducing the price by £500. For this work he had made no charge.

In default of any appearance of the defendant his Lordship gave judgment for the amount claimed, with costs.

The diploma of Honorary Fellowship was recently presented to His Royal Highness the Prince of Wales at St. James's Palace. The document is beautifully engrossed on parchment by Mr. Graily Hewitt, and the seal of the Royal Institute is attached.

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The Royal Exchange, Manchester.
Architects Messrs. Bradshaw Gass & Hope.
Contractors: Messrs. Stuart's Granolithic Co. Ltd.
Concrete Engineers: The Trussed Concrete Steel Co. Ltd.

ARCHITECTS KNOW.

A firm which numbers amongst its clients practically all the leading architects may well be considered one of the leading firms of consulting engineers.

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The Trussed Concrete Steel Co. Ltd.

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The Richmond Gas Stove and Meter Company, Ltd.



NEW WORKS, WARRINGTON, FOR THE RICHMOND GAS STOVE AND METER CO. Messrs. William and Segar Owen, Architects.

Warrington is rightly proud of its claim to be the birthplace of the gas-stove industry. For more than thirty years that same industry has been an ever-increasing factor in local life. At least two of the leading manufacturing firms have there nursed modest infant businesses into lusty early manhood. But neither Messrs. Fletcher, Russell & Co. nor the Richmond Gas Stove and Meter Co. would admit themselves to be too old to grow. Indeed the thirty-first birthday of the latter company finds it on the threshold of a new period which promises to far outshine any previous record in its history. Quite recently they opened general offices and showrooms at 164-172 Queen Victoria Street, London, E.C. Last week the Lord Mayor of Manchester opened new offices and extensions to works which now cover an area of twenty acres.

The Richmond Gas Stove and Meter Co. was formed by Mr. Unsworth and Mr. Richmond in 1890 and started in a small building in Scotland Road, Warrington. The staff consisted then of about ten men, at least two of whom are still employed by the company. After a few years larger premises had to be acquired. These were rebuilt on a more commodious scale in 1906 after a fire, and, with various additions, were made to serve until the erection was commenced of the present works at Grappenhall, Warrington.

The new buildings comprise a frontage of 426 feet, with a general depth of 40 feet, overlooking the Ship Canal, a site which was allocated for them from the first commencement of the works buildings in 1906. The present achievement is the culmination of a policy long laid down of housing not only the works on the new site, but also the whole of the office departments. About 1,100 men are on the books. The buildings are of two storeys in height, the offices generally occupying the greater portion of the first floor and a portion of the administrative area on the ground floor. The main entrance is in the centre of the façade, to the right and left of which are the works manager's office and the cost department. The general offices are reached by the main staircase, which turns right and left on the half-landing, opening on to a spacious hall, in which will be displayed various goods manufactured by the company.

Opening from this hall are the board room (35 feet by 22 feet), managing director's room, and secretary's office, with the attendant rooms for those departments. The general office at the moment consists of a room 129 feet long by 34 feet wide, divided into three separate departments.



LABORATORY.

On the first floor is a dining-hall for the office staff, with kitchen department. The remaining portion of the first floor is taken up by a warehouse showroom 134 feet in length. To the left of the main entrance on the ground floor is the works' general entrance, time lodges and wage department.

The building is central-heated throughout, and is lighted by electric light.

The general contractors engaged upon the work were Messrs. J. Dolan & Son, of Warrington, Messrs. the Nautilus Co. being responsible for the furnishing and panelling to the board room and directors' departments.



THE MAIN CORRIDOR.

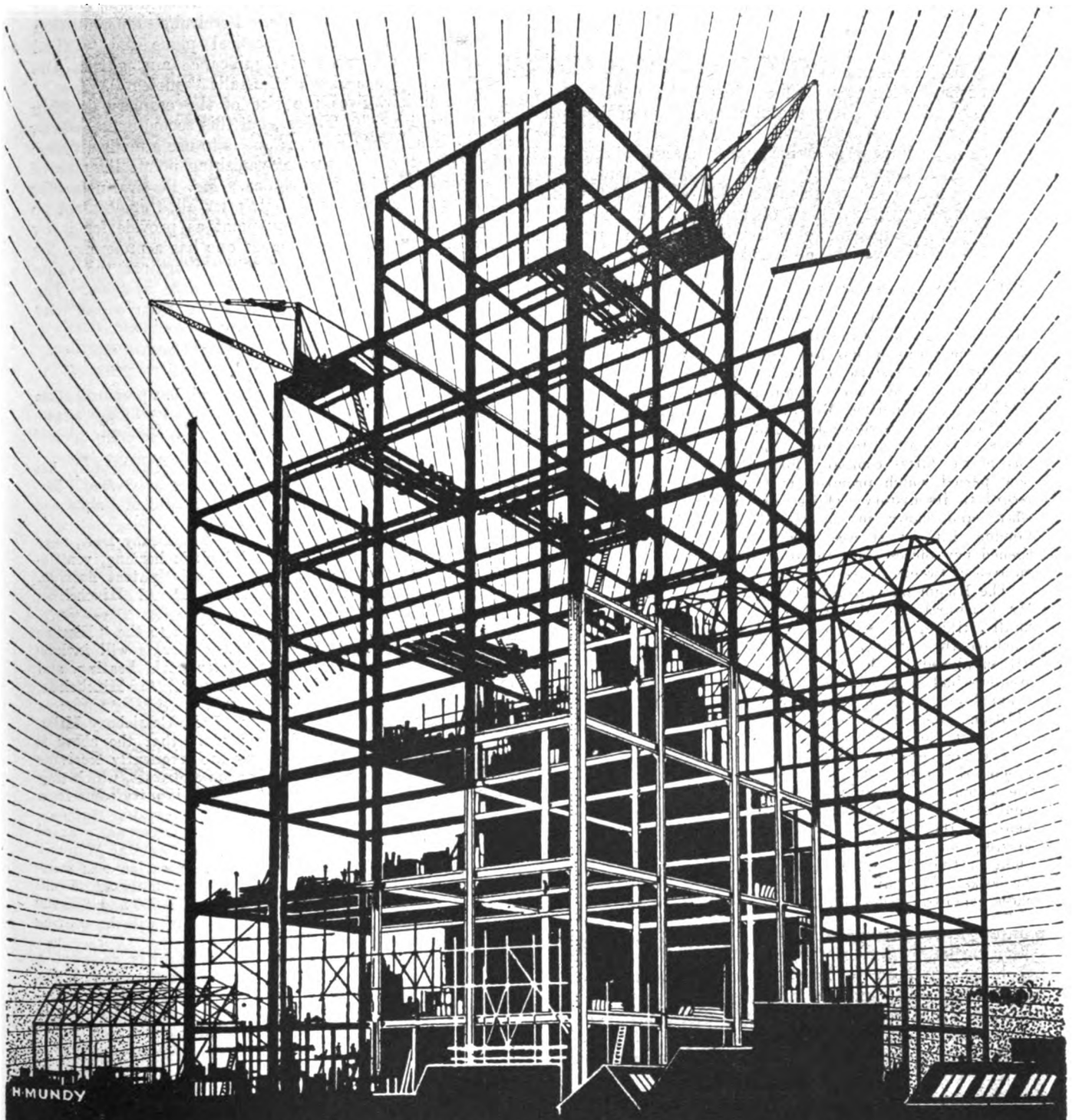


ONE OF THE FITTING SHOPS.

Messrs. William & Segar Owen, of Warrington, were the architects.

Two years ago the Richmond Co. joined with other important gas appliance manufacturers in forming Radiation, Ltd., which has a capital of four millions sterling and employs over 10,000 workpeople. This is not a combine for keeping up prices, but for the elimination of that unncessary competition which tends to increase instead of decrease cost.

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New Books.

"Dictionary of British Scientific Instruments." Constable and Co., Limited. 2s. net.

In these days of associations and combines it is scarcely to be wondered at that a group of twenty-eight British scientific instrument makers should associate themselves in the production of a joint catalogue of the things they make or sell, and a very useful compendium of their productions has been compiled.

As a dictionary it is incomplete and its limitations are to a great extent those of the combined twenty-eight, but one firm which specialises in X-ray apparatus contents itself with two lines of type and a little picture of a pair of cupboards which might contain anything.

Among the various slide rules mentioned, three are referred to by name only. The compiler must evidently have forgotten that the book was to be called a dictionary. After pointing out its limitations one may the more justifiably praise the contents.

Four very interesting essays on Navigating Instruments, The Royal Meterological Society, British Optical Glass, and the The Royal Observatory, Greenwich, form a sort of preface; 130 pages are devoted to the dictionary proper, and last but not least come over 150 pages containing 313 very excellent illustrations. But what appears however, to be a strange oversight this important feature of the book is not referred to in the list of contents or the text of the dictionary. Generally speaking, the information given concerns optical, surveying, drawing, meterological, and other similar apparatus, together with a few incongruous oddments such as fog horns and spectacle frames. As a rule the descriptions are concise and accurate but occasionally only paraphrase the name. The price of a guinea is not out of the way for a publication with a limited clientele, and the book should be appreciated by large business firms, public libraries, &c.

"Reinforced Concrete Calculations in a Nutshell." Edited by Joseph T. Pigott. London: E. & F. N. Spon, Ltd. Price 3s. 10d. net in U.K.; 4s. 1d. abroad.

The first half of this small octavo of seventy-five pages consists of the London County Council Regulations for the use of reinforced concrete, as issued in 1909; two-thirds of the latter portion consists of tables and diagrams of a practical value that should not be disputed. Mr. Pigott's object, as he states in the preface, is to provide for the use of architects rules in the design of buildings in the L.C.C. area, "and with that end in view, data in the Regulations, necessary to the design of beams, slabs, columns, or bases of columns, are referred to in the text." Mr. Pigott's labours have been inspired by regret for the loss of time, and the "apparently unnecessary energy, expended in working with elaborate formulæ having intricate notations," more particularly as applying to R.C. calculations.

Therefore is it that Mr. Pigott has prepared for his own use, and generally also for the use of the public, a set of short-cut methods for such calculations. He gives different values for the angle of repose and weights of various kinds of earth to those given in other text-books, but the disagreement of doctors is proverbial. It would have been well had the figures on the tables been more legible as regards size of type.

"Perspective; the old and new method." By A. S. Percival, M.A., M.B. London: Longmans, Green and Co. 4s. 6d. net.

Mr. Percival has, in the small compass of forty-two pages, compressed some practical rules for the drawing of perspectives, and his views are accompanied by explanatory diagrams, which certainly should help to clarify the text, for the latter unaided is not always too perspicuous. It should be added, that the work is prepared essentially for use in art classes, though once the methods are grasped there seems no reason why architectural draughtsmen should not benefit by the intended simplification. I must frankly confess that the method of instruction, upon which I was fed as a young man, answered its purpose very well; and avoided *inter alia* the confusion created by Mr. Percival's differentiation between the meaning of vertical plane and 'vertical plane' (the difference of significance arising from the use or lack of use of what he calls "quotes").

The author gives the size of the ordinary drawing board as 16 ins. by 23 ins., but this seems unnecessarily small, though, of course, if one is to use a method which eliminates the necessity of vanishing points the size of the board is of less importance. Mr. Percival naturally refers to the centrolinead, but, after all, this does not so much neglect the vanishing point as provide for it by calculation. However, because one has a preference for old methods, this does not militate against the value of newer and possibly more up-to-date systems. The means for diminishing and enlarging from copies may be heartily commended.

General.

Mr. C. W. Miller, architect, Stafford, has prepared plans for a church of a semi-permanent character which it is proposed to erect in the parish of St. John's, Stafford. A site and about £600 has been so far obtained.

Mr. Arthur M. Hind, O.B.E., M.A. (Cambridge), has been elected Slade Professor of Fine Art at Oxford. Mr. Hind is Assistant Keeper of the Department of Prints and Drawings at the British Museum.

A cinema is proposed to be erected at Denby Dale, near Huddersfield. The contracts will include heating, ventilation, fibrous plaster work, and probably patent flooring. The architect for this work is Mr. P. A. Hinchcliffe, F.R.I.B.A., Barnsley.

It is proposed to make large additions to the "Electric Theatre," Eastgate, Barnsley. The contracts will include steelwork, new bioscope, fibrous plaster work, heating, and ventilation. The architect is Mr. P. A. Hinchcliffe, F.R.I.B.A., Barnsley.

Van Kannel Revolving Door Co., Ltd., Cassiobury Mills, Watford, ask us to remind our readers that the above is their only address. The Company are frequently receiving belated letters re-directed from London addresses, which they left many years ago. Only last week an inquiry came from an architect, which had been six weeks en route.

At Evesham on Monday a provisional licence was granted for the erection of a theatre, cinema, and café at Winwick House, High Street, Evesham. The application was made on behalf of Mr. Wiseman, of 131 Florida Road, Small Heath. It is proposed to spend between £20,000 and £25,000 in the erection of the theatre, and there will be seating accommodation for 890.

The Council of the Zoological Society has accepted a tender from Messrs. J. Jarvis & Sons for the construction of a tea pavilion, and the work has now been commenced. It is to be placed in the South Garden, facing the central line of the elephant walk. The pavilion is the first instalment of a large scheme of reconstruction prepared by Messrs. Belcher & J. J. Joass.

The Birmingham City Council last week approved without discussion a proposal to construct an additional storage reservoir at Frankley at a cost of £500,000. The scheme is for the provision, on a site adjoining the existing Frankley works, of a storage reservoir of the impounding type, with a capacity of 500 million gallons. This will be supplied by a short branch from the Elan aqueduct, and the water from it will be delivered by a tunnel about three-quarters of a mile long on to the existing Frankley filters.

Deal and Walmer have decided to erect a new hospital as their war memorial. The site has been purchased in London Road, and it is proposed to plan for a fifty bed hospital, with a number of private wards. Operating theatre, X-ray department, and every modern appliance, but to be built in two sections, the first for twenty-five beds, and the second section when funds permit. A striking feature of the new building will be the memorial entrance hall, containing the name and rank of each man who lost his life in the war. A small sub-committee has been formed, including the chairman (Mr. W. Darracott, J.P.), Lord George Hamilton, Lady Sargant, Sir Robert McCall, Mr. Gilbert Elliot, Mr. E. H. Hinds, Mr. Alderman Redsull, and Dr. A. Mason to consider the appointment of an architect and examine plans, etc.

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VOL CVI.—2759. THE ARCHITECT NOVEMBER 4, 1921.

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The Amateur in Architecture.

WE have heard to our astonishment and amusement that one of our contemporaries refused to publish views of a building because no architect had been employed on its design, which was alluded to as being "a bad precedent." One thinks of the ostrich, which is said to mark its dislike of the proceedings round it by the simple and emphatic act of burying its head in the sand, which we have never learnt had any very direct influence in staying the hand of Fate. In our view, it is usually a mistake for a man to act as his own architect, and the results obtained should—if our assumption is correct—prove our contention. But if our assumption —which is shared by most of our friends—is incorrect, and if the results obtained without the help of architects are better than those of the architect we should still have no hesitation in conceding the truth, the revelation of which might save many unnecessary disappointments and lead architects to seek other outlets for their abilities. We can, in a word, do no harm by admitting facts, for in the long run truth, and truth alone, will prevail.

Our reasons for thinking that an architect's services are required by those who wish to build can be easily stated. Building was formerly carried on in accordance with well-understood traditions, as is proved by the close similarity of the work of past periods as shown in small buildings which rarely, if ever, were designed by architects. Mouldings were worked by hand, and the proportions of windows, doors, fireplaces, and staircases followed certain well-understood lines which were very little deviated from. It can be readily demonstrated that in the design of larger buildings that of the individual parts of the building were almost entirely left to the craftsmen employed. The building materials used were almost entirely those of the locality, the manner of using them was governed by the tradition of the district, and the building contract as we know it was unknown, men being simply paid for their daily or weekly labour unharrassed by trade-union legislation. Under such conditions the building owner—as we should now call him—often gave a few simple directions as to his requirements without plans, or expressed in the roughest of "drafts," or even more frequently a general schedule of intention. Such a system left no gap to be filled by the architect as we know him, except in the case of greater buildings, and then his functions were widely dissimilar and more general in character than those which now obtain, as he was a general director and surveyor of works carried out by craftsmen on traditional lines.

We may now analyse and differentiate the divergence between past and present practice in so far as it affects the building owner. In the matter of design, no carpenter's foreman could be relied on to give us doors and windows of harmonious proportions and design without specific details. It follows that, unless the amateur building owner has a great and unusual knowledge of detail, in which case he becomes something more than an amateur, he would have to pay for his inexperience in the shape of misapplied design, which is as costly as well-considered work, and his building would be in that sense more expensive.

In practice we all find that good and economical planning is an art which can only be acquired by long experience and practice, and one of which the amateur builder has no knowledge, so that in what may be called two departments of an architect's work—the use and design of detail, and a knowledge based on experience and practice of the problems of planning—he must necessarily be deficient, a deficiency which will mean that he will spend more for less result than he would have done had he availed himself of an architect's services.

But this is not all, for building operations are carried on through the agency of contractors; and to make a definite building contract which defines the builder's responsibilities, a mass of detailed statements and accurate drawings are required. These cannot be furnished by an amateur, however able, with the result that the amateur's contract with the builder must be embodied in a loosely expressed document, or else operations must be carried on by day-work. In the first case, the amateur architect will not know exactly what his commitments are; in the second, he will not know at all what they are likely to be.

The result of these two last circumstances will be to add to a result made relatively expensive by want of knowledge of detail and planning an undefined liability, such as is almost eliminated by the employment of a competent architect. We assume that the contractor is an upright and honourable man, who will not take any advantage of his employer's ignorance on practical points; but, should this not be so, we must add to our table of losses those which may be occasioned by the contractor's knowledge of his increased opportunity of making profits which will not be checked. These are the sum of our reasons for believing that the average man will make a mistake if he acts as an amateur architect. But we would not assert that there may not be occasions and circumstances which eliminate many of the disadvantages we have enumerated, and it is indisputable that in matters of taste and æsthetic insight many men are superior to the architects they employ. We were recently shown the work of an architect of established reputation, and thought that one of his works was beyond all question of a higher order than anything else shown us. The reason was explained when the architect told us that a Mr. —— "insisted on looking into every detail himself and wished his ideas followed out." The architect in this case had the aid of one who in everything but specialised knowledge was superior to himself. But we do not imagine that the client would have presumed on this superiority to act without an architect,

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or that had he done so he could have avoided some of the pitfalls we have enumerated. In past times it is sometimes difficult to say whether and at what period a man was an amateur or a professional architect. Was Wren an amateur architect when he lectured on astronomy at Gresham College or when he produced a plan for rebuilding London after the Fire? But after his life's work was done and he had designed St. Paul's and many other works, including the City churches, was he or was he not a professional architect? But Wren's case illustrates the point we have made, for if we assume that another and equal genius arose the expression of his talent would be rendered almost impossible till he had acquired training, because traditional craftsmanship is dead and the dependence on detailed drawings has become absolute in works of any scope and highly desirable in others.

We remember that Sir Ernest George, in an address delivered at the R.I.B.A., paid tribute to what he had gained by the suggestions of his clients. He put it that his best work had often been the outcome of the solution of problems set him by his clients—problems he was often at the outset inclined to put on one side as insoluble—and it is by the mental elasticity and sympathy which enable the able architect to understand his client's standpoints that the best work will be done.

But for all the reasons stated, we should be pleased at any time to illustrate the work of amateurs which possesses any merit; nor do we think in doing so that we should be doing any dis-service to a great profession, but rather that we should be illustrating the strength and weakness of the amateur's position and should be better able to assess the relative proportions of the help which architect and client can both give towards the solution of a problem. Our object should be to arrive as nearly as may be at an estimate of what the average man looks for in building, and then we should be better qualified to form an idea as to whether our specialistic bent has led us to over-estimate the value of certain factors in design.

If we seek truth, we may find it by an impartial and friendly consideration of what amateurs attempt, what they achieve, and of the difficulties they fail to solve; nor need we fear the result of such analysis, or feel that we are in any way advertising the achievements of those who are likely to be rivals in a field which should be our own.

It is in this light that we take the announcement that Mr. Brangwyn has been commissioned to design an art gallery in Japan, which may give us valuable ideas of what an artist looks for in such a building, or may, on the other hand, prove to Mr. Brangwyn that architecture involves more complicated problems than he had imagined; it is with this object we illustrate an interesting library carried out from the instructions of an amateur by a contractor, for the result of such experiments must be of value to all of us. We stand or fall in all things, not by the assertions of our prejudices or beliefs, but by the results produced when they are put to actual test by trial, and from the ultimate judgment arrived at by the weighing of facts there is not—or ever will be—any appeal.

Illustrations.

GUILDFORD GRAMMAR SCHOOL, WEST AUSTRALIA. Walter Tapper, F.R.I.B.A. (Royal Academy Exhibition, 1921.)

GLASGOW UNIVERSITY EXTENSION: NEW NATURAL HISTORY BUILDING. Sir John Burnet, Son & Dick, Architects.

On the ground floor there are a lecture room to accommodate about 260 students and an elementary laboratory for about 150 students, facing the north and with windows reaching right to the roof of the building to give a flood of light for practical work. The general arrangements are clearly shown in the plans given. Over the museum there will be two large tank rooms for purposes of marine biology, while behind the building will be a courtyard for the accommodation of live animals. Throughout the entire plan special attention has been devoted to lighting and ventilation. The lighting of the museum has been so arranged that the direct rays of the sun cannot penetrate to the specimen cases, and the ventilation is on the principle of mechanical extraction. The heating is on the vacuum principle. All the fittings and working benches will be of the most modern character, as will also be the other equipment for conducting the work of the department. Building operations are to be commenced immediately, and it is hoped to have part of the new premises ready for the winter session of next year. The estimated cost of the new buildings is about £130,000. The architects are Messrs. John Burnet, Son & Dick, of Glasgow.

"HOUSE OF CERES" and "FISHERMEN OF CHIOGGIA." By Donald Shaw Maclaughlan. (From the Leicester Galleries.)

Notes and Comments.

The Architectural Association and Mr. Bottomley.

Mr. Maurice Webb, in speaking at the opening meeting of the Association on Monday last, humorously alluded to some points of similarity between a certain pamphlet which purports to record Mr. Bottomley's philanthropic schemes and the recently issued Association pamphlet, which is beautifully illustrated, but of which the letterpress might be supposed to be written by a "strong, silent man." We may add our hopes that this pamphlet will be as widely circulated as "John Bull" is, and that, like "John Bull," we shall see it everywhere. The only fly in the ointment is that if the Association becomes too popular, as it is in some danger of being, we may be faced with the difficulty of finding employment for every third man in the country, since he will have been induced to take up architecture. One little reform might help, which is that all other schools, both here and abroad, should be closed so that the entrance to the calling of architecture throughout the world should be between the portals of No. 35 Bedford Square. We have given a good deal of thought to the difficulties of the problem, and this seems the only reasonable suggestion we can make.

A Canadian Suggestion.

A suggestion comes from Canada which is more "American" than most things we have heard of. In a certain township of Quebec a rocking-chair has been invented which generates enough electricity to drive fans, sewing machines, and other domestic appliances. We are not told whether it is necessary that the person who wishes to sew should rock herself at the time. A contemporary suggests with reason that there is no reason why we should stop at rocking-chairs, and asks why every opening door should not be made a factor for accumulating electricity, and why every bath tap should not be made to act as a turbine. There is no end to the ingenuity of the mechanical mind. We remember being

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THE LIBRARY OF Mr. CLEMENT SHORTER, GREAT MISSENDEN, BUCKS.
Constructed by Mr. Arthur Wright of H. J. & A. Wright, Builders, Great Missenden, from designs by the late Dora Sigerson (Mrs. Clement Shorter).

shown a very wonderful moving handrail patented by Mr. Brennen, of torpedo fame. By releasing a catch the handrail helped to drag anyone upstairs. We were shown it, and admired it, but could not make it work, though it absolutely satisfied the inventor. But such is the dulness and want of adaptability of mankind that these sympathetic handrails are not even yet used everywhere, and it may be that for a few more years we shall have to witness the waste of rocking energy, wasted energy in the bathroom, and more waste in other ways.

Westminster Monuments and their Colouring.

It is stated in the Press that as the result of cleaning operations on some of the early tombs in Westminster Abbey it has been discovered that the brownish black colour of the monuments is not, as generally believed, due to the dirt and wear of centuries, but caused by a heavy coat of opaque varnish, which was deliberately applied many years ago, and which has covered a wonderful display of Gothic heraldic design work in gold and brilliant colouring. Work has commenced on the tomb of Edmund Crouchback, Earl of Lancaster, one of the three fine monuments on the north side of the Sanctuary, the others being those of Aveline, Countess of Lancaster, and Aymer or Audomar de Valence, Earl of Pembroke. Professor Lethaby, Surveyor for the Abbey Restoration Fund, has entrusted the work of renovation of the monuments to Mr. E. W. Tristram, of the Royal College of Art, who says that when the work is completed the public will have some idea of what the whole of the Abbey must have looked like in the Middle Ages in its wonderful garb of gold and brilliant colours.

We should probably be sorry if the experiment spoken of were pursued to its legitimate end, as, although it is beyond doubt that the medieval builder applied colour freely to stonework, the effect of such application would not constitute an improvement in the opinion of most of us. The devoted antiquarian alone would probably be the only man who would wholeheartedly approve of such a process as is suggested.

The Building Guilds Again.

Mr. Malcolm Sparkes, speaking at a meeting in which he explained the nature of his guild and appealed for support, blandly stated that the whole capitalistic system was breaking up, and said, in conclusion, that

Finally, the Guild declares that under no circumstances will it ever divide its surplus earnings in the form of dividends. It is a fundamental rule that surplus earnings must always go to the improvement of the service by way of increased equipment, reserves, technical training and research, all factors which will operate to reduce prices in the future. The Guild is endeavouring to work out a new



ANOTHER VIEW OF THE LIBRARY OF MR. CLEMENT SHORTER AT GREAT MISSENDEN.

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A MONUMENT TO PATRICK PEARSE AND HIS COMRADES, SHOT IN EASTER WEEK.
Designed and Sculptured by DORA SIGERSON.

form of contract, under which it will guarantee that the price will not exceed a stated maximum, and yet at the same time any saving effected by Guild organisation is to be shared with the customer. The Guild desires to carry on its business as a self-governing public service with all the cards on the table. It summons to its assistance all the best talent that can be found, believing that if it can show that guild control of industry can really deliver the goods, then it will perform a valuable service, not only to our own country but to the world.

This shows the usual misstatements which, in spite of all contradictions, continue to be made. The commercial company, which carries over a portion of its profits as reserve and pays dividends with the remainder, is doing exactly what Mr. Sparkes proposed. The reserve fund of a company, as of the guild, goes to the improvement of its service, and if we were grandiloquent like Mr. Sparkes, we might say for the benefit of the community, while the fact that Mr. Sparkes' guild pays no dividend in money does not prevent it from paying dividend in kind, not only to the workers but to everyone connected with it. The price which is not to be exceeded is exactly similar to a builder's contract price with a sliding-scale clause; in the latter any saving effected goes, as a whole, to the customer, whereas the Guild proposes to share the saving with the customer. It is, therefore, clear that the guild, with its somewhat unctuous affectation of philanthropy, is standing out for a larger profit than the capitalist, to whose aid Mr. Sparkes, like all his tribe, appeals very plainly when he requires initial funds for the organisation of "public service." Mr. Sparkes' attitude in these matters is that of the ordinary tenant who takes all he can get from his landlord and then abuses him. But it is not on public platforms, but on building sites, that Mr. Sparkes' guild should do its work. If it can build better, cheaper, and more efficiently than anyone else, it will obtain as much work as it wants; if not, abuse of the capitalist will not, in the long run, help the guild.

The London University Site.

The Senate of the London University, at its meeting last week, considered the communications received on the subject of Holland Park, but came to the conclusion that as the Bloomsbury site had been offered to the University and been accepted, and the Holland Park site had not even been offered, the proposal did not come within the region of practical politics. A very important objection is that the choice of Holland Park would involve the rebuilding of University College, which is in immediate proximity to the Bloomsbury site, and in these days of high building costs the objection would seem to be insuperable. One of our contemporaries has made the useful suggestion that both sites should be given to the University, Holland Park being utilised for hostels and other living accommodation for students connected with the University.

Royal Institute of British Architects.

The following are notes from the minutes of the Council meeting held on October 17, 1921:—

R.I.B.A. Premises.—The completion of the purchase of No. 10 Conduit Street, the letting of the building on satisfactory terms, and the reconstruction of the Council room and office were reported to the Council, and votes of thanks in favour of Mr. Sydney Perks (Chairman of the Finance and House Committee) and of Mr. Arthur Keen (Hon. Secretary) were recorded on the Minutes.

New Members.—The Council approved the applications of eight candidates for the Fellowship and 114 candidates for the Associateship.

Civic Survey.—It was reported to the Council that arrangements had been made for handing over the Civic Survey diagrams of Greater London to the London County Council, the diagrams of South Yorkshire to the City Corporation of Leeds, and the diagrams of South Lancashire to the Manchester and District Regional Planning Advisory Committee.

Conditions of Contract.—The report of the Conditions of Contract Conference with regard to the drafting of new conditions of contract was approved.

Competitions.—The Competitions Committee were authorised to confer with representatives of the Society of Architects in regard to the more effective control of competitions.

Undercutting in Housing Fees.—The Council ordered that a report of the action taken in a case involving the undercutting of fees in connection with a housing scheme be published in the "Journal" for the information of Members.

Sealing of Contracts with Public Bodies.—The Council directed that the attention of members should be drawn to the importance of ensuring that all contracts with public bodies should be under seal.

Reinstatement.—Two ex-Fellows and one ex-Licentiate were reinstated under By-law 23.

Fees for Housing Work.—The President reported the progress of the negotiations with the Ministry of Health on the subject of the scale of fees for housing work, and the Council directed that a joint meeting of the Practice Standing Committee and the Committee of Housing Architects be summoned at an early date to prepare a report for the General Body.

Unification and Registration.—The Council were informed that the report of the Associates on the unification proposals would be completed at an early date. It was accordingly decided that the report should be circulated to the Council and referred to the Conditions of Membership Committee for consideration.

Board of Architectural Education.—The Council approved the list of Advisory Members proposed by the Board of Architectural Education for the session 1921-22.

Competition News.

A printed letter has been received by the Secretary of the Society stating that in consequence of a communication received from the Society of Architects, London, the directors have decided to withdraw the competition for the proposed New Cinema, Bury.

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London Art Galleries.

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A very brilliant exhibition at the Alpine Club Gallery is now placing before the London public pictures of Morocco, the Riviera, and other subjects by Sir John Lavery, together with a certain number of portrait and child studies by Lady Lavery. Mr. Winston Churchill, in his "foreword" to this exhibition, does full justice—without, in my judgment, saying a word in excess—to Lavery's extraordinary facility and complete command of his material. "Sir John Lavery"—says this writer, who, by the by, if we ever do arrive at a Minister of Fine Arts seems to be qualifying for that onerous position—"is a *plein-airiste* if ever there was one, painting entirely out of doors, with his eye on the object, and never touching a landscape in his studio. No painter has coped so successfully with the difficulties of this method. . . . In consequence there is a freshness and a natural glow about these pictures which give them an unusual charm. We are presented with the true integrity of an effect. And this flash is expressed in brilliant and beautiful colour with the ease of long mastery."

We find this criticism fully borne out in the scenes before us here, which vary from "Princes Street, Edinburgh," and the links of North Berwick, seen in clean hard sunlight, to the "River at Maidenhead," the luxuriance of the Riviera of France, the warm languorous beauty of Tangier and the North African coast, with its intense light and colour. In his "Tangier Bay, Morning," the Mediterranean changes from green to blue, to be lost in the purple of the distant mountains; in "The Beach, Tangier," we have those golden sands which extend in a wide sweep from the city gates; in "Moorish Interior" (see p. 266) we have the reception-room of a native house at Tangier, a great courtyard open to the sun, with a fountain in its centre. Sir John Lavery knows Morocco well, and it was my privilege some years ago to describe a journey of his into the interior as far as Morocco city; and here, again, he seems to revel in the warm colour and strong sunlight of this northern point of the African continent.

With Lady Lavery's contribution to this exhibition we have certainly a surprise to many, who, like myself, had not the privilege of knowing this gifted lady. "La femme de Jean de Reské ne chante pas," said the wife of the famous tenor. "Lady Lavery," says Mr. Winston Churchill again, "does not accept this ruling, and we are grateful to her for her rebellion. She has gifts and graces of her own which it would, indeed, have been a pity to hide." In the thirty paintings and drawings shown here, and in these last particularly, there is personal sensibility and often very great charm. Take, for instance, the group of two girls' figures called "The Flowered Hat," a little composition of quite singular felicity. I have seen few things more delightful than this, more spontaneous in its charm of expression: it recalls to me in these qualities that delightful group of "The Dance" which Henry William Bunbury entrusted to the famous Bartolozzi's graver, just as the studies here of a naked baby girl ("Child Bathing") might recall Lady Diana Beauclerk's creations. Among the portrait studies I noted Anna Pavlova, Cardinal Logue, and Lady Diana Cooper: in the little "Nude Study" the figure is handled with perfect sureness and mastery.

The winter exhibition of the Royal Society of Painters in Water Colours, recently opened at their Gallery in Pall Mall East, is the 177th exhibition of this old Society, and will be open up to December 17. I consider this a very brilliant and successful exhibition, and this impression is given at once by the paintings on the wall to the left on entering: we find there work of very high quality by Walter Bayes, Russell Flint, Arthur Rackham, Henry S. Tuke, Frank Brangwyn, Cecil Hunt, Charles Sims, Harry Watson, Charles Gere, Thorne-Waite, and Murray Smith, which alone are sufficient to lift the present display over that of preceding years. Obviously a great asset to the Society, and to the present exhibition, is the fact that Mr. Frank Brangwyn, R.A., is not only now a member, but has marked that fact by this year exhibiting very fully—with no less than five fairly large subjects. Splendidly monumental in character are such subjects as "A French Village" or "La Popie," while in the sketch for "Gypsies" his decorative instinct finds full play; and all this typical of the outlook and methods of this artist, which Mr. Lys Baldry has so well described when he says that "his purpose is almost always to produce a piece of sumptuous decoration which will finely suggest the reality of nature and yet have a full degree of artistic invention, a decoration which will be perfectly bal and arranged without being merely a statement of fact."

Mr. Russell Flint is not a new member, but this year he is particularly brilliant: I refer to such subjects as his "Welling Waters," with its marvellous treatment of the reflections, and to his figures in "Sands" and the "Huntress." One feels, as I have suggested before, that the figure work might be of greater interest: besides Russell Flint and Henry Tuke, who has some delightful studies of boy bathers, and Arthur Hopkins, there are members who could do brilliant figure work, such as Mr. William Wood, Mr. Claude Shepperson, Walter Bayes, Anning Bell, Matthew Hale, and Charles Sims, whose delightful treatment of the figure in "The Trophy" and "A Basket of Flowers" is to be noted, with Arthur Rackham's silhouette of "The Frog's Prophecy," on the first wall; but in most cases the claim of landscape is greatest. In the latter I noted this year the work of Charles M. Gere, Nelson Dawson (elected, I believe, this year), and Colin Phillip. Another new member, Mr. A. J. Munnings, is not exhibiting.

The eleventh exhibition of the National Portrait Society opened last week at the Grafton Galleries. Very interesting features here on this occasion are the portraits sent by Augustus John, by Sir William Orpen, and the masks and other models exhibited by Edmund Dulac. Mr. John has seven paintings in the large gallery, but is scarcely at his best this year. One of the best is that of a boy, "Edwyn," which looks absolutely true to life, and that of H. A. Barker gives the same impression. Francis Macnamara, in brown garb, looking out of the picture with dreaming blue eyes, is the portrait of a young Irish poet whose family I knew when things were better than now in County Clare. Mr. Macnamara was, and no doubt still is, an admirer of the brilliant talent of G. B. Shaw, and a volume of his own poems, "Marionettes," is in my hands at this moment. The Orpen portraits in the same room are not to be missed: admirable are those of the Right Hon. William Hughes and of Lord Robert Cecil, and somewhat less so the Earl of Derby, while that of the Right Hon. D. Lloyd George, looking very sleek, fat, and slippery, can scarcely be considered a very flattering presentation, nor is Sir John Lavery's Cardinal Bourne on the same wall one of this artist's most successful portraits. Lastly, the Dulac drawings, caricatures, and models, which are brilliantly carried through: the model of Mr. George Moore, in evening dress, as "Our Last Victorian," is almost cruelly clever.

The Surrey Art Circle is holding its annual exhibition at the Greatorex Gallery, and the work shows even better than last year: especially good in water colours are Dorothy Cox, Tatton Winter, R.B.A., Percy Rendell, Harold Waite, and Leonard Skeats. Two studies of "Bosham" in Sussex by H. C. Jarvis and by Harold Waite are particularly charming. S. B.

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The Architectural Association.

The first ordinary general meeting of the Architectural Association was held on Monday, October 31, at 34 and 35 Bedford Square, W.C. The President, Mr. W. G. Newton, M.C., M.A., A.R.I.B.A., was in the chair. After the usual informal supper a certain amount of business, including the announcement of eighty-one nominations for membership and the election of seven members, was transacted. Mr. Newton then gave his Presidential address, which he entitled, "How to be a Student."

There was some danger, he thought, in the habit of comparing school with school and student with student: the danger, that is, of developing an intensive culture, and going round in circle within circle, the danger of being unduly coloured by environment. It was sound to get away from the environment at times: to look at the schools and oneself from an external point of view. In the first place, why be an architect at all? It was all-important to develop a conviction that the career was worth while, and worth while not from the point of view of income (no one would be so paradoxical as to maintain that opinion), but from the point of view of public service. Sometimes it was claimed in self-justification that without architects houses could not be provided. But they can, and in the mass they have been in the past and probably will be in the future. The bricklayer, or the joiner, or the plumber is necessary. But not the architect. No! architects must be honest with themselves and take a higher ground. Architecture is not the mass production of shelter or, in the main, sanitation and stability. Students, so far as they can, are learning to produce all the time and every time buildings fit for their purposes and fair to look on, buildings that will be a worthy background for the lives of those who follow. Man hasn't lived for twenty-five centuries beyond Plato to go back to believe in the "hog-life." The necessaries are the "sine qua non est," but the beauties are the "sine qua non debet esse"—the without which it isn't worth having. From a crude economic point of view the beauty-maker is a parasite in a community. So is the pearl among the oysters. The ideal student wants to be above all a "full man," touching life at many points. Exacting as the study of architecture is, and demanding long hours and unremitting industry, the student must not develop solely his powers of design, with all that implies in the way of allied study and knowledge. He must read deeply and widely, and make himself familiar with the thought and the history of other times; he must develop a simple and forcible style of expressing himself in writing or in speech, using the short word and the simple phrase rather than the obscurity of periphrastic circumlocutions. He will keep himself fit by taking that form of exercise which he likes best. Above all, he must get away from school and paper for a month or two in the year and go about to see what men have built in other times and other places. Our own country is full of beautiful things, and there are few better ways of spending a week or two than exploring with map in pocket and pack on back the treasures at one's door. But if there is a month to spare, France will be calling, or Italy, and this not because they are richer in beautiful things but because there is a certain freedom and abandon about being abroad which is for a student a quarter of the battle. Abroad one is expected to be a student, to walk about on cornices and explore the back parts of altars. There are, however, three embarrassments. There is the difficulty of language, the difficulty of choice, and the physical difficulty of large drawings on travel. As to the first, in Rome and the neighbourhood, of course, all students come under the wing of the British school. But North Italy is too far from Rome for this, and it would be excellent to establish a system of "Italian aunts" who would arrange to give a student anywhere introductions to someone with local knowledge and influence, who could in one day do for the student what it would take him a week to do for himself. As to the difficulty of choice, to a great extent of course the student will be guided by his own tastes and the advice of his instructors. Before going he should read all about the place or district—not only about the architects, but the painters and cardinals and bandits, what the barbarians did there and what the Romans, and why it ever started being a town at all. Secondly, the student should have some clue, some sort of background to his studies—either follow one man in his varying expressions, or one kind of building in its different developments, or recreate a monument that has been altered by time and later hands. As to the double-elephant board and all the paraphernalia necessary for large rendered drawings, they are certainly a clumsy addition to one's kit. However good it may be to have a fine set, measured and drawn and finished on the spot (the wise man will leave nothing to be completed when he gets home, for to compare what is drawn with what is built is half the education of it all), one must not be hypnotised by the demand for something which will make a show at home. It is the getting things into our heads that is the true training, the analysis of plan, the handling of mouldings, the being about in a three-dimensioned fact, and while we are in the midst of it recording it in two dimensions. Much can be done on a 14 inch by 10 inch block of squared paper—or, better still, clip two or three squared sheets flat on a piece of cardboard. This is always handy and always flat, and never blows about. Spend a day thinking and walking about the building before doing any drawing at all. And now and then, in the middle of it all, break right away, and plunge into water-colours, or play with the bambini, or go a walk in the hills and write a sonnet to the sunrise. Do not refuse to look at any work built at an unfashionable date. Study one period, but learn to enjoy them all. It may be that the sun-drenched porch of San Zeno will teach more than all the gates and palaces of San Micheli. Don't be overruled by the prophets who preach one way of salvation.

Discussion.

Mr. Maurice Webb (past-President), in proposing a vote of thanks, suggested the shortest answer to "How to be a Student" would be "Go to the Architectural Association." When a student is mature he begins to study his own mistakes. Travel helped one to avoid mistakes. Students should try to visualise their schemes as a final realisation and not leave them as pretty coloured things. Mr. Newton's suggestion as to "Italian aunts" seemed a topping idea. He himself had gone to Venice for his honeymoon armed with one good introduction, and by its aid had seen everything. Part of a student's life was to drop work occasionally. In that connection it was interesting to hear that an old A.A. play was to be revived. One or two of these would be worth doing if brought up-to-date.

Mr. Howard Robertson (Principal of the School) confessed that when he was abroad he always felt rather diffident and slunk about with a Baedeker so that people would not see the cloven foot of the architectural student.

Mr. H. Chalton Bradshaw (Rome Scholar, 1913) said he had managed to enjoy himself in Italy without any uncle or aunt, and had experienced no difficulty as to language or in obtaining information.

Mr. G. D. G. Hake thought it unfair for English people to expect their language to be understood everywhere. French would carry a man anywhere.

The Hon. H. A. Pakington remarked they had been told as students to do so many things it would be necessary to change the A.A. curriculum. Personally he found already there was no time for reading or for games. It would be a good thing to put a week in the middle of each term for a real rest cure, though each term should continue to be fourteen weeks long.

Mr. H. M. Fletcher pointed out it was not necessary to lay aside a special time for studying buildings. As one walked the streets one could observe, say, the effect of windows being recessed or flush with the outer walls or of the necessity or otherwise of absolute symmetry.

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The suggestion as to "aunts" had already been met in France, where le Syndicat d'Initiative has an office in every town for the purpose of referring the inquirer to the proper person. On a recent visit to Albi he had received much help from a local baker.

Miss Cook confessed that when she was travelling in Italy for a month's studentship she found it difficult in her excitement to do any work at all. There was so much to see there seemed no time for serious measured drawings.

Sir John J. Burnet, A.R.A., said in the French school in which he was trained anything except work was considered abhorrent. Personally he considered the Ecole des Beaux Arts very much as being a mental gymnasium where one strengthened one's intellectual muscles. When travelling in France he made no measured drawings—only sketches. He sympathised with the last speaker, who was too excited in Italy to work. That experience was one reason for going to one place and exploring that place perfectly, making sketches in which you question the reason for everything. It was an infallible truth that a masterpiece is based on craftsmanship, and that buildings which are pure construction are more architectural than many very elaborate ones. The only exception was St. Maclou in Rouen, which is at once most structural and most decorative. As architects the students would be faced with immense responsibilities. An architect was very much in the position of the commander of an army, who needs to know and understand the services under him. So architects must appreciate the possibilities of the various crafts and give each craftsman that interest in his work which only comes by some new thing he can do. His experience was that good craftsmen were appreciative of anything that was new and that indicated a knowledge on the part of the architect of his craft. There were a number of services to be led in a community of effort to a splendid result; just as the power of our generals lay in their knowledge of the men under them and enabled them to attain marvellous results. In Edinburgh architects as recently as the time of Sir Rowand Anderson had produced a type of craftsman extremely difficult to find now. Was it not worth while to know that each man on a job not only did his work but enjoyed doing it? He thereby became a better citizen, and so a national gain was effected. Students had everything to help them nowadays. Books could show them the best work. They should not travel before their minds were trained to appreciate.

Mr. Stanley Hamp said a student had a duty to form a good taste, a right sense, and a full appreciation of what was best. He would then possess a knowledge of what to look for. It was stated sometimes that the A.A. was producing men who could turn out designs and nothing else. His own theory was that construction would come in time, and that it was much more essential to have at the first the right feeling and love for beautiful forms. It was useful sometimes to study the bad buildings, for there was a great deal in criticism and pulling a building to pieces.

Mr. Sylvester Sullivan argued that criticisms should be constructive as well as destructive, and there was no use in merely pulling a building to pieces. Students must avoid clichés. Architects were apt to follow catchwords. It was not enough to declare Michelo Angelo was a d——d bad architect—they must know why. Mature students would do well to mix with immature ones. His own knowledge had been very considerably strengthened in that way.

Mr. J. Alan Slater said that in their President they had an example of what a student should be. Some years ago Mr. Newton went in for an R.I.B.A. prize, and his design for "A Mausoleum on a Rock," though unsuccessful, was a thing of sheer vision and beauty. One of the things to be acquired was vision. Mr. Newton's discourse was full of it.

A vote of thanks was passed by acclamation.

Mr. W. G. Newton briefly responded, and the meeting terminated.

The Board of Architectural Education.

The Board of Architectural Education announce that the designs submitted by the following students who are qualifying for the Final and Special War Examinations have been approved:—

SUBJECT LVIII.

(*a*) *Design for a Triumphal Arch.*—Lomax, A.; Sugden, H. D.; Tyrer, R. G.; Minty, R. J. H.; Sidnell, W. E.; Sutcliffe, T. W.

(*b*) *Design for a Hostel for Fifty Women Students.*—Allison, F. W. H.; George, G. W. H.; Jenson, A. G.; Knewstubb, F. W.; Palmer, K.; Cogswell, V. G.; Gunston, E. L.; Kirby, E.; Minty, R. J. H.; Shroff, L. F.

Designs for various other subjects submitted by the following students have also been approved: Alward, W. W. (2); Angus, A. E. (3); Blakeley, T.; Bramwell, J. (2); Griffith, H. N. (3); Hines, E. G.; Killender, H. C. (2); Martin, N. (2); Riddell, W. B.; Slater, C. (2); Townsend, A. C. (2); Winn, T. J. R.; Andrews, C. D. (2); Beasley, A. (2); Bowring, J. V. (2); Crowther, J. H. (2); Haswell, P. B. (4); Jones, T. L.; Killender, S. C. (2); Pritchard, H. W. (3); Ryle, Miss W.; Thompson, C. C.; Walker, I. (2).

The following gentlemen have been invited to serve as advisory members of the Board of Architectural Education; Mr. Ernest Newton, C.B.E., R.A. (Royal Academy); Mr. C. de Gruchy (Royal Academy Architectural School); Professor E. S. Prior, A.R.A. (Cambridge University); Professor Patrick Abercrombie (Liverpool University School of Architecture); Mr. G. Washington Browne (Edinburgh College of Art); Mr. H. T. Buckland (Birmingham); Mr. W. H. Bidlake (Birmingham); Professor Leslie Wilkinson (Sydney University); Professor Percy E. Nobbs (McGill University, Montreal); Professor Ramsay Traquair (McGill University, Montreal); Mr. Adrian Berrington (Toronto University); Professor R. W. Cable (Bombay School of Art); Mr. L. Sylvester Sullivan (Society of Architects); Rev. Dr. Chilton and Mr. C. H. Greene (Conference of Head Masters of Public Schools).

Forthcoming Events.

Friday, November 4.—Town Planning Institute.—Meeting at 92 Victoria Street, Westminster, S.W. 1. Presidential Address by Mr. R. A. Reay-Nadin. 6 p.m.

— Royal Academy Ateliers.—Fancy Dress "Guy Fawkes" Ball at 9 Conduit Street, W. 9 p.m.

Monday, November 7.—Royal Institute of British Architects. Meeting at 9 Conduit Street, W. Presidential Address by Mr. Paul Waterhouse, M.A., F.S.A., F.R.I.B.A. 8.30 p.m.

Thursday, November 10.—Garden Cities and Town Planning Association. Meeting at King's College, London. Lecture by Dr. H. P. Berlage (President of the Dutch Society of Architects) entitled "Amsterdam—Past and Present." 5 30 p.m.

Friday, November 11.—London Society. Meeting at the Royal Society of Arts, John Street, Adelphi, W. Lecture by Mr. W. D. Caröe, F.S.A., M.A., entitled "Old London Bridge."

It is proposed to build a new hotel at Cudworth, near Barnsley. The plans have been approved by the local authorities, and are now being submitted to the licensing authorities. The architect for the work being Mr. P. A. Hinchliffe, F.R.I.B.A., of Barnsley.

Among recent wills proved are those of Mr. George Lacy Crickmay, F.R.I.B.A., of The Nook, Beechwood Avenue, Oatlands Park, Weybridge, with estate at £14,554, and of Mr. Charles Edward Wilkinson, of Marloes Road, Kensington, W., and of Lexham Gardens, W., builder, valued at £25,837.

The new session of the Royal Institute of British Architects begins on November 7, when the new President, Mr. Paul Waterhouse, F.S.A., will deliver his inaugural address. Mr. Waterhouse, who is an old Balliol man, is the eldest son of the famous Victorian architect, Alfred Waterhouse, R.A., the designer of the Natural History Museum, the Prudential offices in Holborn, the Manchester Law Courts, and other buildings that were landmarks in the history of the Gothic revival. There will be a considerable gathering of Balliol men on November 7 to do honour to the new President. Lord Sumner, Lord Crawford, Lord Charnwood, Sir Henry Newbolt, Mr. A. B. Walkley, Sir A. Hope Hawkins, Professor J. W. Mackail, and others are among those who have accepted invitations to be present.

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"The Architect" Fifty Years Ago.

NOVEMBER 4, 1871.

METROPOLITAN BOARD OF WORKS.

THE usual meeting of the Metropolitan Board of Works was held on the 26th ult. at the office in Spring Gardens; Colonel Hogg, M.P., in the chair. A communication was received from Mr. Street, C.E., the architect of the new Courts of Justice, in which he stated that some weeks ago, at the request of the Chancellor of the Exchequer, he had called upon the superintending architect of the board to consult him as to a proposal he was authorised to make to the Metropolitan Board of Works, and which he was then requested to put into writing, and he (Mr. Street) had then complied with his request. There could be no doubt whatever that the Strand ere long must be widened in the narrow part between the churches of St. Mary and St. Clement, and, owing to the position occupied by Somerset House, the increased width must be obtained on the north side; but, if both churches remained, it would be impossible to carry out a thorough improvement when the New Courts of Justice were completed. The church of St. Mary-le-Strand had a good roadway on the South side, but St. Clement's Church was very differently placed. It was parallel with the Strand, but placed at a most awkward angle across it in such a way as to drive all traffic in a curve round its south side, and to prevent practically all free use of the roadway on the north. The consequence was, that there seemed to be no way in which the roadway between Temple Bar and Somerset House could be made sufficiently wide and straight to be really as useful as it should be as long as the church of St. Clement occupied its present position. It appeared to him that it would be possible to propose a scheme to effect this object, and having matured his plans, and on bringing them before the Chancellor of the Exchequer, he found that he was ready to entertain them so far as his consent would not involve any expenditure of the public money for works which were clearly of the nature of Metropolitan improvements, such as widening of streets or thoroughfares leading to the Courts of Justice. His proposal was to remove St. Clement's Church from its present site and to build a new church on the extreme western portion of the Courts of Justice site, which was not at present appropriated to any other purpose. It would be a perfectly quiet site, well guarded, with good access and surroundings, and well placed for the convenience of the parishioners. If the church were removed it would be very easy, and it was part of his plan, to bring the whole of the mass of the New Courts of Justice slightly further to the south. That would be rendered easy by the removal of the present impediment to the building at the south-west angle caused by the roadway on the north side of St. Clement's, and it might be done leaving the Strand at this point of the sufficient width of 103 feet, whilst on the north side the result would be that the whole buildings of the Courts of Justice would be moved southward. The whole length of Carey Street, north of the new buildings, might at the same time, and without additional cost, be sufficiently widened. If the Courts of Justice were built and the whole of the present cleared site arranged without reference to it, it would be most difficult, if not impossible, at any other time, to find a suitable site for a new St. Clement's church, and consequently it would be impossible to improve the Strand at its worst point; and though it would not be impossible to widen Carey Street, it could only be done by an Act of Parliament, which would probably excite opposition; and at a cost very far beyond what would be supposed to be likely, owing to the great and rapidly-increasing value of the property on the south side of Lincoln's Inn. If the Metropolitan Board of Works decided to entertain the proposal there would be many points of detail to be settled. The parish of St. Clements would require, no doubt, to be provided with a church at least as handsome, solid, and capacious as the present church, whilst it would be required also that it should harmonise with the New Courts of Justice; and supposing that it were to cost 50,000*l.* to provide such a building on the site available, would not this be a very economical mode of effecting the improvement. It would not only clear the way for the greatest of Metropolitan improvements, but it could be done at a moderate cost. It was necessary that the question should be decided without very much delay, as the works now in progress for the New Courts of Justice were being actively pressed on, and some important modifications and alterations would have to be made, and he trusted the suggestions he had made would be acted upon.



MOORISH INTERIOR. By Sir JOHN LAVERY, R.A.
(By permission of the Alpine Club Gallery.)

At Kirkintilloch Dean of Guild Court, last week, plans were passed for the erection of a picture-house on the site presently occupied by the Black Bull Inn in East High Street, which has been closed since the burgh voted dry. The new cinema will have sitting accommodation for 1,029.

Mr. F. A. Jackson has for some time been engaged on a series of frescoes for the British Embassy Church in Paris, under the general direction of Mr. Cecil G. Hare, of Messrs. Bodley & Hare. The remainder of the series were taken last week by aeroplane to Paris.

Improvements are to be carried out at the R.A.F. School of Technical Training, Manston. The men's quarters are to be reconstructed and the barrack buildings re-roofed. The cost will be over £20,000, and a Ramsgate firm has secured the contract.

The Norton (Malton) Urban Council have approved plans submitted by the Glasgow United Foundry Company for laying a water-supply and sidings to a site near the Malton Railway Station for their new foundry works. The site covers seven acres, and will give employment for 200 men. Plans for the buildings will be submitted in due course.

CORRECTION.—With reference to the photograph of Aston Lane Schools, Birmingham, which appeared in our issue of October 28 in an advertisement issued by the British Reinforced Concrete Engineering Company, Limited, we are asked by them to state that the name of the architect was incorrectly given, and should read H. T. Buckland, architect to the Education Committee, Birmingham.

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HOUSE OF CERES.

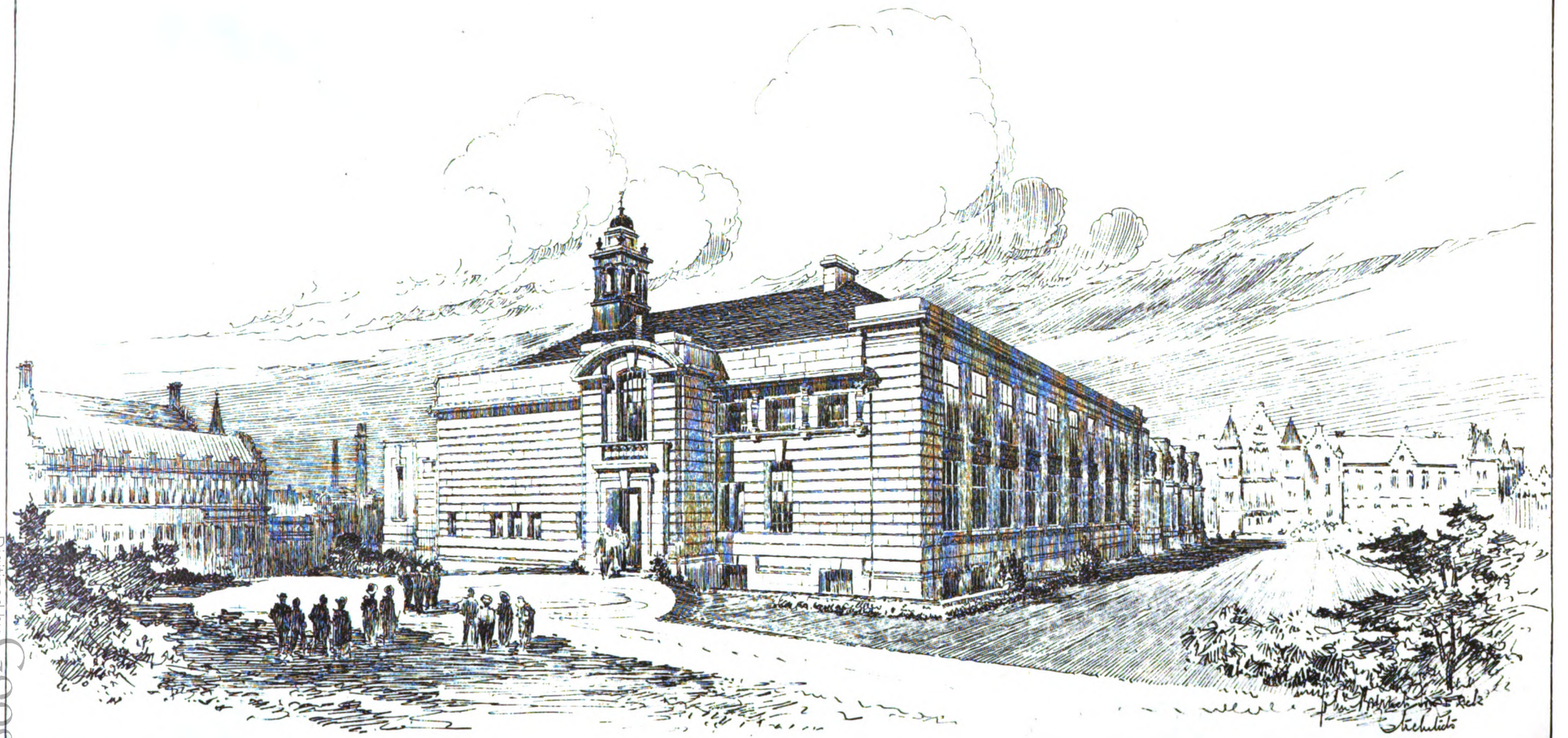
By DONALD SHAW MACLAUGHLAN.

FROM THE LEICESTER GALLERIES.

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GLASGOW UNIVERSITY EXTENSION.
NEW NATURAL HISTORY BUILDING.



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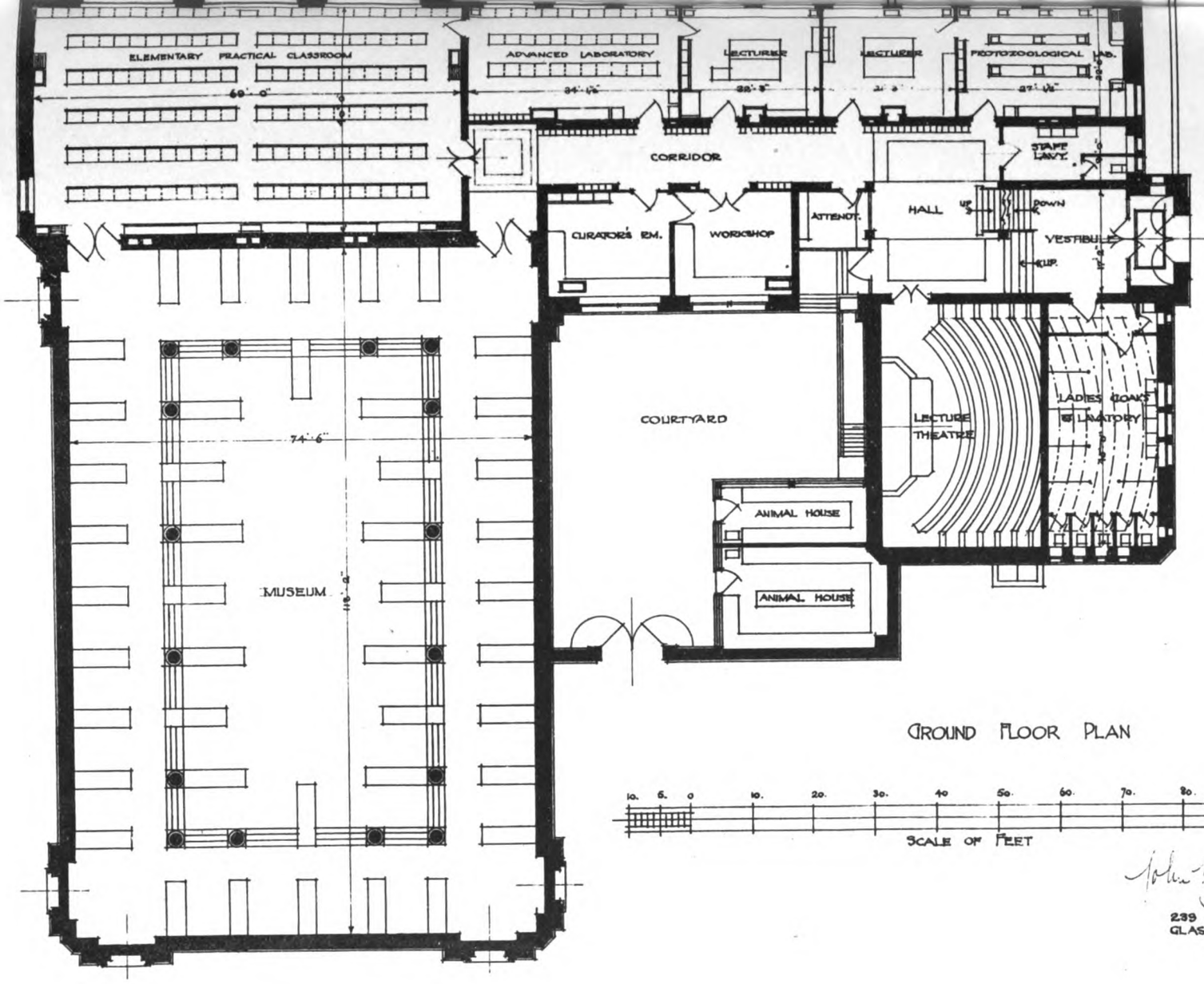


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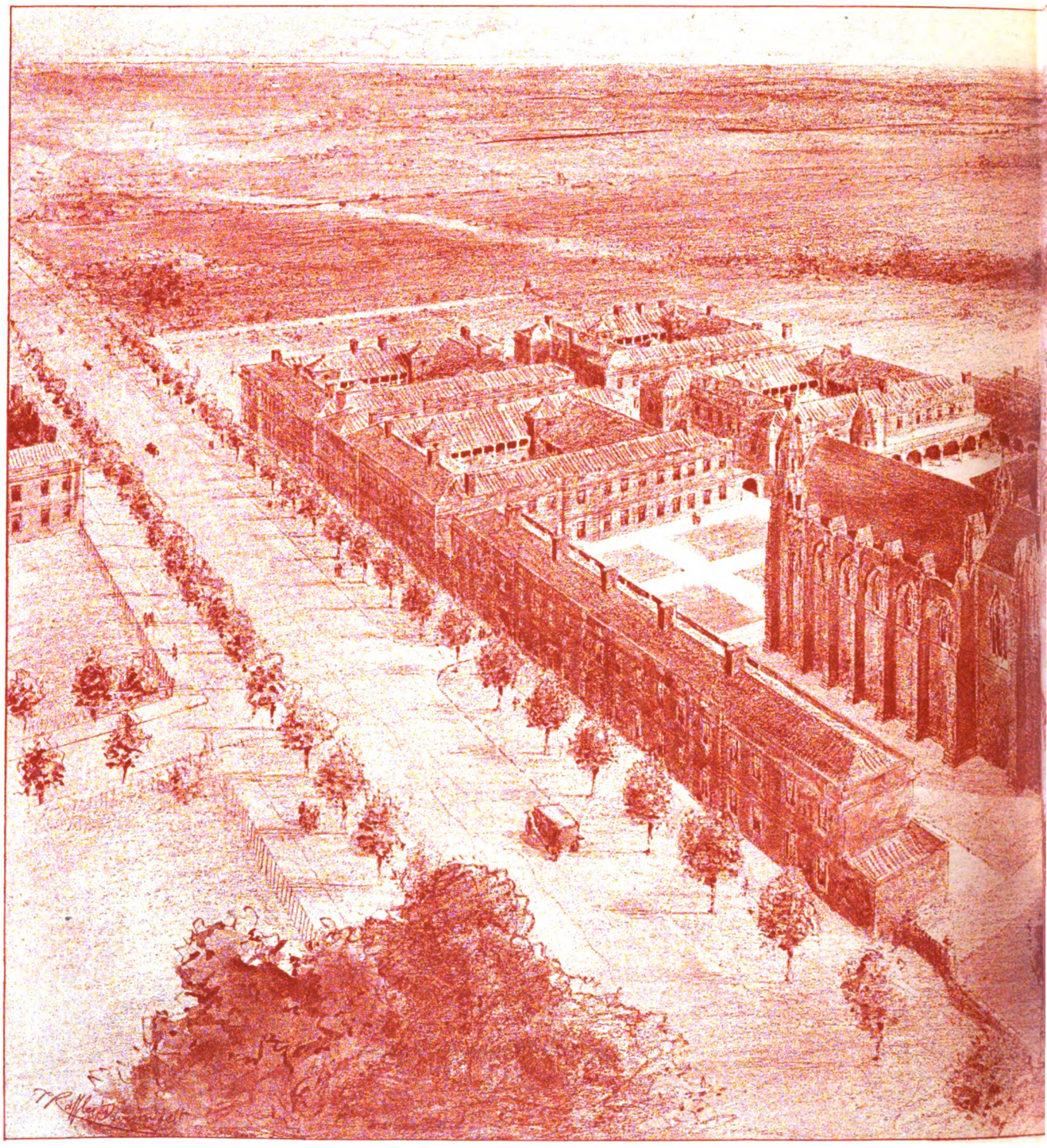
GLASGOW UNIVERSITY EXTENSION: NEW NATURAL HISTORY BUILDING.

SIR JOHN BURNET, SON & DICK, ARCHITECTS

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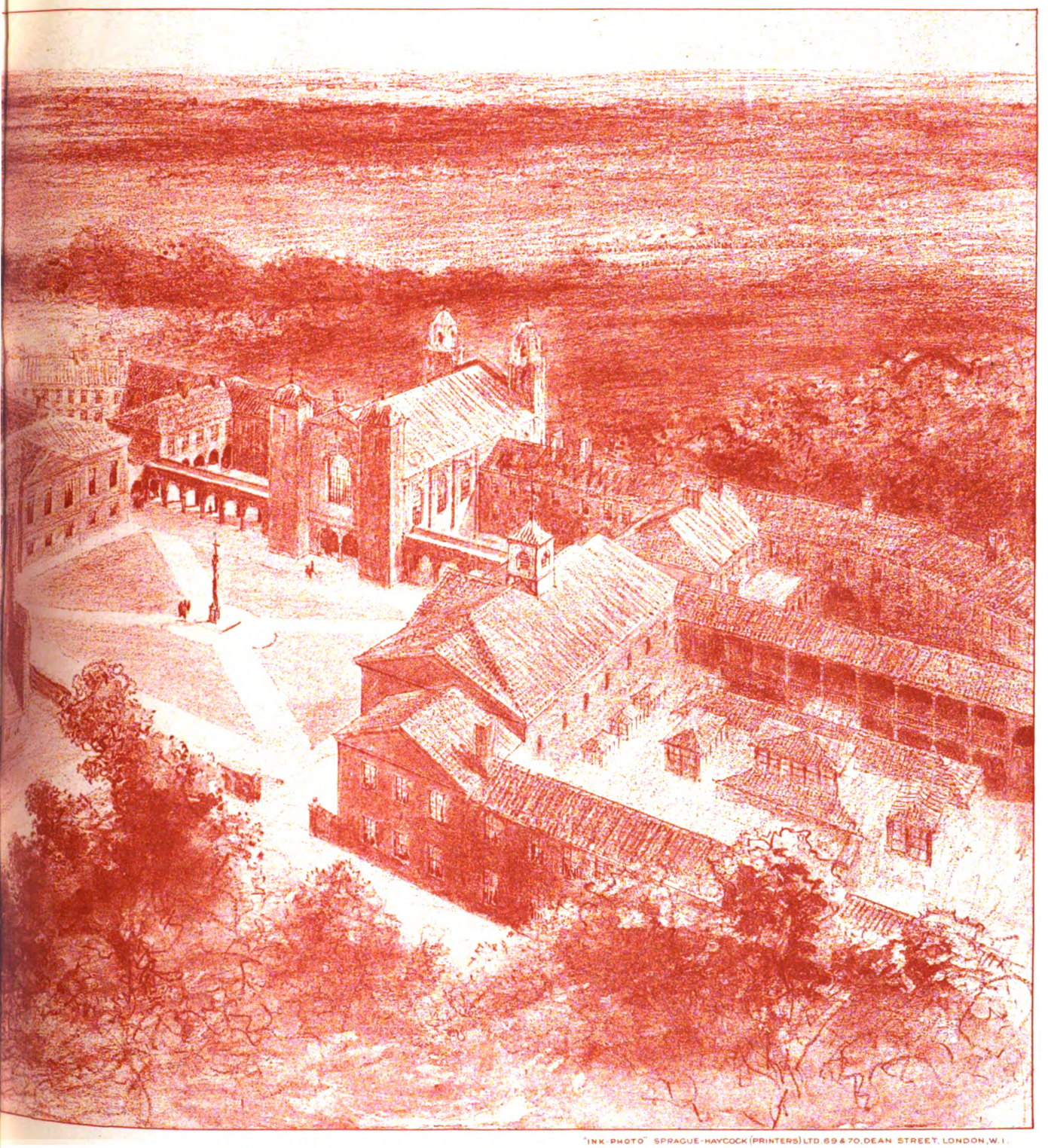
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GUILDFORD GRAMMAR
WALTER TAP

Royal Academy Exhibition, 1921.

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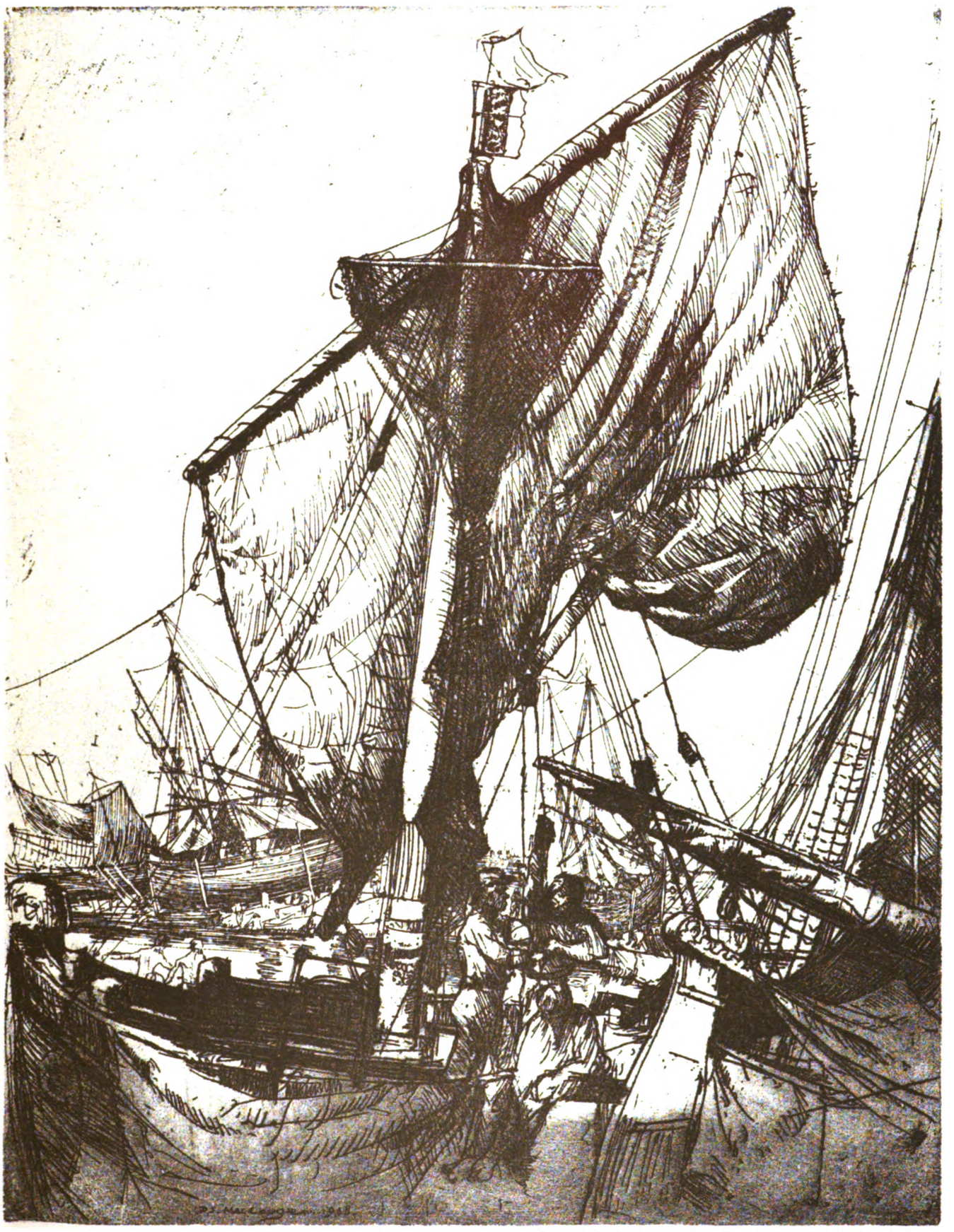


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HOOL, WEST AUSTRALIA.
F.R.I.B.A., ARCHITECT.

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FISHERMEN OF CHIOGGIA.

By DONALD SHAW MACLAUGHLAN.

FROM THE LEICESTER GALLERIES.

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Church Architecture and Organs.—II.*

By Sir Charles Nicholson, Bart., M.A., F.R.I.B.A.

Organ building seems to have been more advanced on the Continent than it was in England in the sixteenth and seventeenth centuries. But one can only judge of this fact from the number of early organ cases which have been preserved abroad and the fewness of those that are left in England, and in this connection we must remember that in this country there was a general destruction of church organs in the time of the Great Rebellion.

Of mediæval organ cases we have, I fancy, only two examples in this country—at Old Radnor and at Framlingham. In France there are quite a large number—Amiens, Chartres, and Perpignan Cathedrals, and several in parish churches. In Spain mediæval organ cases are still more numerous; I refer, of course, to large organs, of which there exist visible remains. Naturally, we have only the organ cases left of the original work, the action and practically all the pipes having long ago been renewed in every instance.

The size of the old organ cases under consideration, which appear in all cases to date from the sixteenth century, shows that large and powerful instruments were then in use in many churches. Old English records enumerate several "pairs of organs" in inventories of the greater churches, while many parish churches are credited with a single pair of organs in the sixteenth century. But in those churches which are described as containing several pairs of organs it is not likely that all the instruments were large ones, and it is quite obvious from a cursory study of old English churches that many of them have no place intended for accommodating a large instrument.

Regarding the position of the large organ in a mediæval church, it varied very much in different countries. At Amiens the large organ is at the west end; at Chartres and Perpignan the instruments are corbelled out from the side walls of the nave; the same is the case at Strasburg. The great organ at Lubeck is at the west end, but the Spanish organs nearly all follow the arrangement described at Chartres and Perpignan.

In this country the old organs at Lincoln Cathedral and old St. Paul's were built in galleries on the north side of the quire, and the contemporary descriptions of some other great churches mention organs placed on the roodlofts.

In one or two English parish churches of late mediæval character there exist contemporary west galleries evidently meant for musicians, and possibly for an organ also. There is one of these at Worsted Church, in Norfolk. At Wells Cathedral there exist some stone corbels in the south clerestory of the nave, and these may possibly have been inserted in order to carry the mediæval organ.

I need not enumerate the church organs of the seventeenth and eighteenth centuries in England. It is enough here to remark that they were generally placed either in western galleries or upon the roodlofts in the case of cathedrals. I shall speak of the organ cases of this period later. At present we are considering the disposition of the organ with relation to the building.

In a few cases English nineteenth-century organs are found in exceptional positions. At Rotherham, near Sheffield, the old organ loft was at the end of the north transept. At Whitchurch, near Edgware, Handel's organ occupies a space behind the altar.

Continental organs of the seventeenth and eighteenth centuries are, of course, very numerous, and are, as a rule, placed in western galleries. In Spain, however, the mediæval arrangement of an organ on one side of the church was generally adhered to, and in Italy organs are very often placed behind the high altar of a large church, especially if the church happens to belong to one of the religious orders. In such cases the normal position of the high altar is between the choir and the people.

Now, if we consider these various methods of placing the organ adopted by the old master organ builders we find that they all have certain points in common. First, the instrument is placed near the choir of singers which it is intended to accompany. This is not at first sight apparent in the west gallery organs in France in which the tradition of placing the choir between the high altar and the congregation has been preserved, but it becomes intelligible when one remembers that in most French churches the choir, where placed at a distance from the main organ, are provided with a smaller instrument for accompaniment. In those churches where the organ is at one end of the building and the choir at the other there is generally a second choir seated in the organ loft, or, as an alternative, the west-end organ is used for solo playing only, though it was doubtless originally intended to accompany those parts of the service which are properly allotted to be sung by the people.

The practical objection to this is that it requires two organists, and that there is some difficulty in keeping the two instruments in tune. In other respects the arrangement is an ideal one from all points of view.

It will be observed that the English cathedral custom of placing the organ on the roodloft fulfils the same conditions. When these organs were built the naves of our cathedrals were disused, and the congregation and singers crowded into the choir, at the west end of which stood the roodloft with the organ on top of it and the choristers, as a general rule, just below the organ. At Norwich Cathedral was an exceptional arrangement, the choristers being accommodated on the top of the organ loft.

The lateral organs at Chartres and Perpignan, it is true, have no choir galleries connected with them, but at Milan Cathedral and several other Italian churches there are side galleries containing the organs and choirs.

The second characteristic of all these old organs is that they are well raised above the church floor, the third that they are always placed in a part of the church where there is plenty of space above the tops of the organ pipes.

Now, in the ordinary English parish church we generally find an organ built during the last sixty years and arranged in defiance of at any rate the last two of the principles which have been referred to as having been invariably followed by the old masters of organ construction.

I do not quarrel with the general arrangement of the organ in most of our cathedrals. Though in some of these buildings the organ is a veritable eyesore, the fault is not so much due to the position of the instrument as to the bad design of the organ cases, or in some cases to the excessive size of the organ.

In dozens of parish churches, however, the fatal mistake has been made of placing the organ in one of the aisles or chapels flanking the chancel. This is absolutely destructive of the architectural effect of many fine church interiors. It also has the disadvantage of placing the organ on the church floor with a roof immediately above the tops of the organ pipes, and the result is that an organ so placed is deprived of the immense advantages of having plenty of open space round it.

Even the much-abused organ chamber is, to my mind, a better arrangement than that which blocks up an entire chapel or aisle with the organ. The disadvantages of an organ chamber are no greater than those of the arrangement to which I have taken exception, and its architectural drawbacks are much less.

If I were responsible for placing an organ in a church, and circumstances necessitated it being placed at the east end of an aisle, I should strongly urge the authorities to be content with a small organ, and to place it standing free in the aisle, and not in the corner of the church.

You will understand I am speaking now principally

* Continued from October 21. A paper read at the London Congress of the National Union of Organists' Associations.

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of old churches. In a new one it is possible to make proper provision for an organ at the outset.

The unfortunate habit of putting organs into chancel aisles and chapels is one of the results of the Tractarian movement in England. The Tractarian reformers recognised that many of the old traditions of English churchmanship had lingered on in a more or less corrupted and debased form in the cathedrals and college chapels, and jumped to the conclusion that every parish church ought to have its cathedral service, or the best imitation thereof that it could aspire to. Hence the general practice of moving choirs and organs from the west galleries to the east ends of the churches.

One of the facts that was, no doubt, recognised by the earlier Tractarians, but which is often overlooked by those who now direct the services in parish churches, is that practically all the public offices of the church have from time immemorial been formed on lines recalling those of the Chorus of a Greek play in alternating verse and response. Even in prayers which are directed to be recited by the whole congregation the custom has survived of the opening words being recited by the minister alone. In other prayers which are recited only by the minister the congregation has always been expected to say its Amen audibly, except (in the present English prayer-book) in the case of the Lord's Prayer at the commencement of the Communion service, which is to be regarded as the priest's private preparation for that service, and which, of course, takes the place of a much longer form of private devotion prescribed in the more ancient rite upon which the Book of Common Prayer is modelled.

Even the Creed and the Gloria in Excelsis are cut up into short sentences, corresponding exactly with the alternating verse and response in which those compositions are customarily sung in French and other Continental churches where modern operatic music has not usurped the place of the ancient traditional chant.

Now this system of verse and response becomes to a great extent lost when the service is rendered by an ordinary parish choir in the chancel, with a large organ close behind the singers. The arrangement may be suitable enough for leading the congregation in the singing of hymns. But for effective rendering of verse and response, either between the minister and the choir or between the choir and the congregation, the best effects will be attained when the latter are placed, as it were, between two fires—the clergy and possibly a small choir or some cantors in the chancel, the principal organ and choir at the west end. I am, of course, speaking of broad general principles; one cannot make a rule that will apply equally well to every church or locality.

I have referred already to the fact that the old organs generally had a good space left above them. This can generally best be attained by placing the organ at the west end of the nave, since the nave of a church is, as a rule, much loftier than the aisles, and a west-end organ is not, as a rule, cut off from the body of the church by arches of masonry.

You will probably be inclined to accuse me of inconsistency in condemning the boxing-up of an organ in a chamber or in a low aisle cut off from the body of the church by more or less obstructive arches, for I am about to propound a proposition that every organ should have a substantial organ case such as was invariably the practice until the middle of the nineteenth century. You will naturally ask: Why box up the instrument at all if you object to boxing it up with masonry?

The two things are, however, by no means the same. A wood casing has resonant and mellowing effects as regards the sound of the instrument; a stone boxing merely deadens and muffles the tone in quite a different manner. That a fairly close organ case is not detrimental is evident from the fact that considerable portions of all modern organs are deliberately enclosed in swell boxes. Of course, a properly designed organ case exposes as many as possible of the pipes of the great organ, generally those of an open diapason, which I am given to understand gain in effect by being exposed. And, again, there is no artistic reason why organ pipes should not form part of the design of the sides and back of an organ case, though as a general rule this is not a convenient arrangement for the organ builder, except as regards the pipes of the pedal organ.

The organ case, then, should be regarded as a rectangular framework of joinery, with some of the panels left open in order to expose those of the organ pipes which gain in effect by being exposed. The top of the organ case is naturally left open, and the whole thing may be compared to a grand piano with the lid off. As everyone will recognise, in a large building if you want to hear a pianoforte performance you will naturally place the instrument about the centre of the stage, and not under a low-roofed alcove. Nevertheless, you do not strip off the wooden piano case and expose all the mechanism of the instrument; it is sufficient to open the lid. To obtain an analogous result with an organ you must place it in the loftiest part of your church, you must leave as much space on each side of it as possible, and you must have a suitable organ case, certainly for the sake of appearance, possibly also for reasons of acoustics.

Next we may briefly consider the question of the proper level for the organ. My own view is strongly in favour of raising the whole instrument upon a gallery. Architecturally the effect is much better when the organ is raised. Valuable floor space is not lost to the church, and an instrument of considerable size can be introduced with a minimum of inconvenience.

From the organist's point of view I am told that the player gains greatly by being placed at a high level, where he can hear and see all that goes on in the church below him. There is, however, another distinct advantage in placing the organ and the player together in a gallery; this is the advantage of ensuring simplicity in the construction of the organ itself. Now, we all know there are a number of ingenious inventions for playing organs from detached consoles and so forth, but these all cost money which would be better spent on honest pipe-work and the perfecting of a simple and straightforward system of mechanism. An organ placed in a loft can be arranged in the very simplest fashion, because there is in such cases no necessity to accommodate the plan of the instrument to the surroundings, such as the seating and gangways.

It is true that if the organ stands on the church floor there is more space above it than if it is placed in a gallery, but if the organ is reasonably proportioned to the size of the building there is generally sufficient height available for an organ loft.

The position of the loft may be either at the west end, in a transept, or in some cases on the rood-screen. It is only necessary to add that in planning the organ arrangements one ought to set out with a clear idea of what the structure of the church music is to be—whether it is to be rendered solely by the choir, whether the people are to have their share, or whether it is to be entirely congregational.

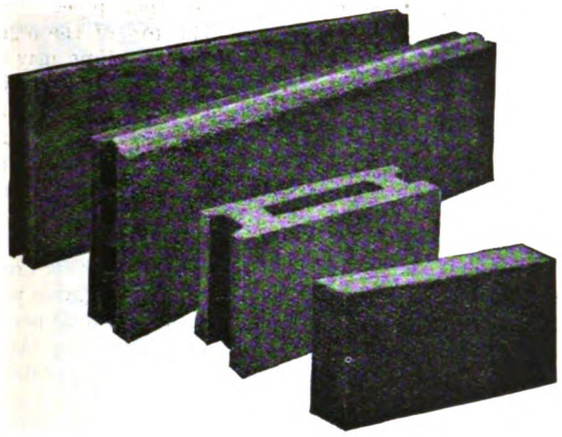
While holding decided views as to which of these three alternatives is the most desirable in any particular set of circumstances, I will not dare to intrude my crude ideas upon an audience like the present one.

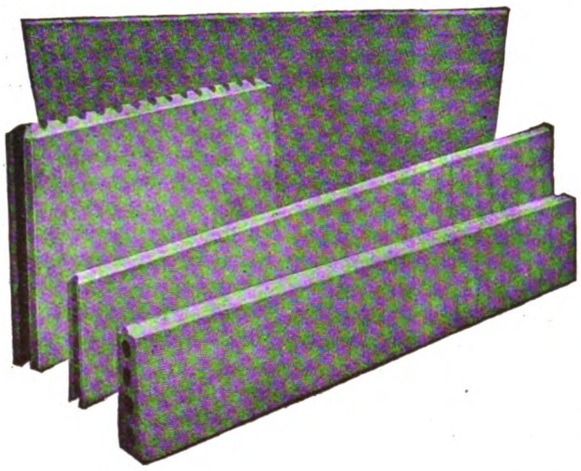
I will conclude with a few further remarks upon organ cases. I have enumerated a few mediæval specimens, and we are all familiar with fine examples of later date, such as those in Gloucester and Exeter Cathedrals and those in the London City churches and that at King's College, Cambridge.

In all these organ cases we find a large number of pipes displayed in the fronts. These pipes are grouped in blocks of three or more large pipes divided by flats of smaller pipes sometimes in two stages. In the later examples the groups of large pipes are often arranged in projecting towers of semicircular form, but this is not often the case in the mediæval organ cases, which are usually flush-faced and were often enclosed with great

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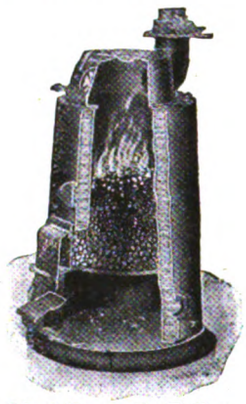
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hinged shutters, some of which may still be seen in Spanish organ cases. The wooden-case work is invariably carried up above the tops of the organ pipes, and these are screened with carved and pierced wooden shades. The outline of the best examples is usually a broken one, the towers of large pipes rising above the flats. Nothing could be more practical and rational than such designs, and nothing is more effective architecturally. The nineteenth-century organ builders' design, with the tops of the organ pipes standing up above the casework, is, on the other hand, ungraceful and stumpy-looking. It has no advantages beyond saving a few shillingsworth of wood, and the artistic effect of an organ is better if it is without a case at all than if it is provided with one of these abortive compromises.

Let me therefore plead, for the sake of the architecture, that if you are going to have an organ case you should have it designed on the good, sound, traditional lines that were accepted by the master builders and the master players of the sixteenth, seventeenth, and eighteenth centuries.

One other word with regard to cathedral organs. I have hinted already that the old-fashioned position on the centre of the rood-screen has certain merits.

Although I should be unwilling to put up a new organ in this position in an English cathedral, I should be equally unwilling to remove an existing one if I found it there. It is, however, the fact that modern cathedral organs are too large to be contained in a case small enough to stand on the roodloft of an average cathedral; consequently in many instances these organs have been reconstructed in recent times. In some places, as at Exeter and Lincoln, as much as possible of the new organ has been put back into the old case, and the remainder has been put in another part of the church; at Lincoln in the triforium of the quire. This is a very good solution of the problem.

On the other hand, at Southwell and St. David's the organ builders have wickedly scrapped beautiful old seventeenth-century organ cases and disfigured those two noble interiors with atrocious eyesores of the worst mid-Victorian character.

If the organ is to stand on the roodloft, which is perfectly admissible architecturally provided the visible portion is of reasonable size, and provided there is a well-designed case, the proper architectural treatment is for the instrument to stand boldly up as an isolated tower-like object in the middle of the roodloft. If there is plenty of space left on each side of the organ case the effect of cutting the length of the church in two will not be felt. A crying mistake has been made in the design of the organ at Rochester Cathedral, where the space over the roodloft is filled up on each side with organ pipes, and a comparatively narrow opening has been left between the two halves of the instrument. This arrangement cuts the church in half in a much greater degree than the old-fashioned plan of setting up an isolated organ on the middle of the screen.

The west-end organ has never been seriously tried in an English cathedral, except at Oxford, where the conditions are abnormal, owing to the nave having been destroyed. I hold the view that architecturally the west end is the best place for the principal organ of any church, cathedral or parochial, and that a secondary organ for accompaniment should be provided near the choir.

If, however, this arrangement is ruled out of court I should favour the position on the roodloft, the organ itself being placed flat against the side walls, as in Westminster Abbey, or, in places where there already exists an old organ upon the centre of the screen, I would leave it in that position for the sake of preserving the old case, if it was a good one.

The foregoing opinions, you will understand, are expressions of an architect's point of view, but I do not think they ought to be in antagonism to the views of musicians like yourselves.

In conclusion, I am afraid, as I said at the outset, that both musicians and architects have a very solid wall of prejudice to scale if they attempt to do anything the public is not accustomed to, and therefore I venture to prophesy that I shall continue to accommodate monstrous organs in chancel aisles, and that you, gentlemen, will continue to play Bunnett in F on them till death do us part. All the same, it is sometimes pleasant to air one's grievances, and I must thank you, brother artists, for having listened to mine with so much patience.

Admiralty Arch Approach as an Advertisement Hoarding.

The London County Council is evidently not troubled with an æsthetic conscience where London's show buildings are concerned.

At this week's meeting of the Council Mr. Andrew T. Taylor asked the Chairman of the Improvements Committee if it was a fact that the Committee had given permission to an advertising firm to erect a hoarding nearly 60 feet high and 65 feet wide at the Admiralty Arch approach for the purpose of a bill-posting station; whether it was in accordance with the objects and aims of the Improvements Committee, to which the Council entrusted the improvement and beautifying of London, to permit an erection of this nature to deface London's one great ceremonial and processional road; whether the sanction of the Government and the Westminster City Council had been obtained; and whether the Committee would take steps to have the contract cancelled and the hoarding removed.

Mr. Meinertzhagen, Chairman of the Committee, replied that the flank wall of certain buildings abutting on the Arch had been let as an advertising station in accordance with the Council's usual conditions. In addition to being concerned with the amenities of London, the Committee was entrusted with the duty of obtaining the best return for the Council's surplus land. (Hear, hear.) In the present instance they were not justified in forgoing the substantial rent offered. Neither the Government nor the Westminster Council had been consulted. The matter would be discussed at the next Committee meeting on a motion which Mr. Taylor had himself placed on the agenda paper.

In view of the general attitude of the Council, there seems little likelihood that the Committee will reverse its earlier decision, and the war-time practice of disfiguring public buildings with advertisements will, so far as the Admiralty Arch approach is concerned, probably be continued.

Plans by Mr. W. D. Caröe, M.A., F.S.A., for the proposed conversion of Jesus Chapel of Malvern Priory into a war memorial chapel were considered at a largely-attended meeting of the Church Council. These plans are to be exhibited in the church for a further two weeks, and at the expiration of that period another meeting of the Church Council will be called.

A series of discourses upon architecture and the decorative arts is being given on the four Thursdays in November at various well-known houses in the West End. The first of these took place on Thursday last at 5 30 at Lansdowne House, by the courtesy of Mr. Gordon Selfridge. Mr. H. Avray Tipping lectured on "English Furniture of the Tudor and Early Stuart Period," with lantern illustrations. The second discourse will be on November 10, at 1 Carlton Gardens, lent by Viscountess Northcliffe, in aid of endowing a women writers' bed in the Elizabeth Garrett-Anderson Hospital. The lecturer on this occasion will be Mr. Robert P. Oglesby, and the subject will be "The Early English Renaissance," with lantern illustrations. On Thursday, November 17, Mr. J. Starkie Gardner will speak on "The Decorative Lead Work of the Queen Anne Period," at 27 Belgrave Square, lent by Lady Greville. The fourth of the series will take place at 9 Halkin Street, Belgrave Square, lent by Lady Mary Morrison, when Sir Charles Allom will give a discourse on "A Knowledge of Architectural and Decorative Art." Tickets (5s. each), the proceeds of which will be given to various charities, may be obtained of Mr. G. S. Lashmar, 126 New Bond Street, W. 1.

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New Books.

"Manual of Educational Woodwork." By David Brown. London: Constable & Co., Ltd. 6s. 6d. net.

"This book is intended for use by pupils attending a course of instruction in manual training, and, by supplementing their practical work in the class, to afford assistance in the more theoretical portions of the work." In these words Mr. Brown commences his preface to a book which should certainly prove of value to those for whom it is published. The merits of manual training cannot be exaggerated, and just as the practical work in the shop during the hours of day should be supplemented by the apprentice, and the journeyman too for that matter, attending evening classes, so may the latter well be additionally aided by the study of such books as the one now under review.

The scheme of the book is based upon the work dealt with in the first and second years sequentially; each part is preceded by a synoptical table showing the division of study into three terms, with the work devoted to each of these. The text describes the work in detail, and is elucidated by good explanatory diagrams. The questions set as exercises should preferably have the solutions given in a book of this nature. It is perhaps rather a curious definition of "annual" rings to say "as a pair of rings is usually formed every year, they are known as annual rings"; it would be better to explain that the annual growth usually consists of one layer of spring and autumn wood, the former being large-celled and the latter close-celled, but it all forms one season's ring. The book concludes with a number of supplementary models for exercises.

"Practical Geometry for Builders and Architects." By J. E. Paynter. London: Chapman and Hall, Ltd. 15s. net.

This addition to the number of the books contained in the Directly-Useful Technical Series, founded by the late Wilfrid J. Lineham, M.Inst.C.E., should prove of very distinct value to that section of the public to which it is meant to appeal. Some of the practical works, seeking our suffrages fail to suggest that they will ever find students or other readers in sufficient numbers to justify the expense of publication. Such books are often either produced in too costly a style, or at any rate at a price beyond the means of the average practical man; or their subject-contents are too jejune in quality; for the cult of the obvious is greatly in evidence in these days.

But the present work is not to be so classed; its twenty-two chapters contain a vast amount of instructive information in a desirable way, and further illuminated by over 350 diagrams. That there are details needing attention whenever a new edition is called for is perhaps almost inevitable, but this is largely a matter of want of care in proof revision, though such errors as Fig. 3 (g) exhibits, can be attributed only to initial want of care; we notice two other errors on the page, where Fig. 3 occurs, and further errors upon pages 14, 15, 31, 35, 37 (four errors), 58, 79, 117, 122, etc. We say "etc," as if casual inspection discovers all the above, it may be supposed that others remain undiscovered. But despite the above slurs the practical value of the book is not sensibly diminished. It is not the first time that we have encountered instances where knowledge and carelessness rub along together within the same physical compass.

Mr. P. H. Bulnois, M.Inst.C.E., who was called in to advise the Alton Urban Council on the unsatisfactory condition of the sewage works, has proposed works improvements estimated to cost £10,000. The Council has deferred the whole matter.

Messrs. Medway's Safety Lift Co., Ltd., of London, have just opened a new branch office at 131 Oxford Road, All Saints, Manchester (Tel. No. Central 1764), with special staff of skilled engineers to deal with erection, maintenance, and repairs of all kinds to electric and hydraulic lifts.

Development in the Federated Malay States.

The Federated Malay States Government is losing no opportunity of securing expert advice on the development of the country. The services of Mr. C. C. Reade, of the Town-Planning Department of South Australia, have been requisitioned for a year to give general guidance on town-planning.

Professor Gilbert J. Fowler, D.Sc., of the Indian Institute of Science, Bangalore, is at present occupied with the question of sewage disposal in the four largest towns in the Federated Malay States, Kuala Lumpur, Ipoh, Seremban, and Klang. Professor Fowler is eminently qualified to report on this subject, and in 1918 he performed a similar service for Shanghai.

Mr. F. Bolton has also recently visited the country to give advice on the provision of electric power and light in the larger towns.

Apart from town development, the question of irrigation has been receiving attention, Mr. C. E. Dupuis, who has seen long service in the Irrigation Departments of India, Egypt, and the Sudan, recently spent six months in the country reporting on existent and proposed systems of drainage and irrigation.

It is not in England alone that the house shortage and high costs of building are being experienced.

Mr. A. B. Voules, Acting British Resident of the State of Negri Sembilan (one of the Federated Malay States), in his annual report says:—"In common with other States, Negri Sembilan has suffered severely from the shortage of house accommodation for European officers and clerks. The rise in the cost of house building has been phenomenal. Quarters which in 1912 cost $15,000 (£1,750) can now only be built at a cost of $48,000 (£5,250). There are, however, signs that costs are decreasing."

Similar complaints come to hand from other parts of the Far East, and are indicative not only of increased prices for building material, but of higher wages for native labour. There is a tendency in countries which suffer from the depredations of the white ant to use iron and ferro-concrete in greater quantities.

Housing News.

Sir A. Mond (Minister of Health) informed Mr. Myers (Lab.—Spen Valley) last week that except in one or two exceptional cases no compensation has been paid, and no payment is contemplated to builders in respect of the suspension of housing schemes. The total amount involved is less than £25,000.

Newcastle Corporation Housing Committee, on the 26th ult., decided to recommend the City Council to approve of the letting of a contract to the Building Guild, Ltd., for the erection of 154 houses on the Pendower estate at a total cost of £99,324, and for the construction of roads and sewers sufficient for a total number of 294 houses. This arrangement is to be subject to the Ministry of Health sanctioning the erection ultimately of the full quota of 294 houses.

Northampton Housing Committee has recommended the Town Council to build 100 houses of the two-bedroom type, in addition to 540 sanctioned by the Housing Commissioner and erected under subsidy, of which 260 are already occupied. There are 1,400 applications for houses still on the books. The Housing Commissioner has refused to sanction any addition to the number he has already approved, and has also declined to receive a deputation from the Housing Committee to discuss the matter.

The Under-Secretary to the Scottish Board of Health (Mr. Pratt) says that as at September 30 last 2,961 permanent houses and 604 temporary houses had been completed, while 11,989 permanent and 58 temporary houses were under construction in terms of schemes approved by the Scottish Board of Health under the Housing, Town Planning, &c. (Scotland), Act, 1919. In addition, 952 houses have been completed by private persons under the provisions of the Housing (Additional Powers) Act, 1919, and certificates of approval of houses to be erected under that Act have been issued for a further 2,132 houses. The Local Authorities have submitted schemes which, if approved, will participate in the Government grant of £30,000 per annum for the clearance and improvement of slum areas.

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A Change of Heart.

WE recently congratulated a friend who had, in the shortage of 1919, secured a new house. "I don't call it a house," he replied, "but it's a dwelling." The remark applies to half the houses in England; to all, that is, that are due to that despised but useful person the jerry-builder, whose dwellings cover the land. It is not of houses that we propose to speak, however, but of the names of houses, and those the names of houses in a certain seaside town in the South of England.

House names are everywhere a mystery. The builder of a new street, broadly speaking, names it after himself, or a friend, or a member of his family, or a place in which he is interested; but the selection of a house name is another matter. Sometimes, in the case of a new house, the tenant is responsible, and his choice is said to be based upon (*a*) his old home, (*b*) the place in which he spent his honeymoon. More often it is the builder who is responsible for The Elms, a six-roomed villa with nothing bigger than a privet bush by the front gate, or for such compounds as Parkhurst or Hazelwood in the suburban street. At the seaside, however, his flights are bolder. Chatsworth and Eaton are not even semi-detached, but stand in a row at right angles to the sea. Cader Idris, which is at least semi-detached, is, as one would expect, far smaller than The Cottage, a pleasant detached house a hundred yards away, to which you pay the instinctive compliment of thinking you would not mind living there; whereas nothing would induce you to go near Wavecrest, which is divided by the Parade and a broad road from the mildest and most sheltered of Sussex seas, or La Suisse, a weather-beaten stucco villa of eminent Victorian type.

But there are depths below Wavecrest, below La Suisse, below Chatsworth even. The builder who gets hold of a little knowledge is himself a dangerous thing when he inflicts that knowledge on an innocent community. He knows that old English type was black letter; he knows that "ye" was a common form, though he does not know that it was merely a convenient abbreviation, no more to be used now than the *n* or *m* with a line over it, with which the early printers conveniently indicated a doubling of the letter. And this very day, in a civilised community, we have met with his fell work. Two semi-detached houses of the most commonplace character bear on their fronts the sensible and convenient name of Lathom Villas; but the front gate of one bears the incredible inscription, written in new gilt black letter—a contradiction in terms, but how express it else?—"Ye Olde Ruin." It is not old—1900 at the best; it is not a ruin, or the builder would not find a tenant, or if he did the Town Council would evict him. Then why, in heaven's name, Ye Olde Ruin?

No law can touch an offence which is merely a matter of taste; no by-law can be framed which will prevent people from making themselves and their possessions ridiculous. This is a case in which nothing can be done, except from within, and the remedy is, as usual, Meredith's counsel of perfection, "More brain, good Lord, more brain." This town, like others of its size, has its own Museum, its own newspaper; can no person of taste, no member of a local archæological society, enter a protest? We know at least one noble old inn in Surrey which disfigures its attractions with the false archaism of "Ye Olde"; but it is old, at any rate, and not what we once saw described in a house agent's as a "bijou Edwardian maisonette" like our enemy Ye Ruin; but it is a pity, like the adding of the false "charm" of cosmetics to a face which should be proud enough to do without them.

We inquired once of the delightful old man in charge of a municipal Art Gallery and Museum why such rubbish as we saw was accepted for exhibition side by side with historical relics and works of art of real importance. "It's a pity, it's a great pity," was his reply, "but what can you expect of a parcel of estimable tradesmen?" That is the very thing; what *can* you expect? There is one way, and only one, to kill the nuisance, until more brain shall have developed, and that is by ridicule. If some patriotic resident in every town afflicted by Chatsworths and Dovedales and Ruins were to make a list of such names and—to avoid personal unpopularity—send it to a friend of some standing, with a request to forward it, with comments, to the editor of the local paper, something might really be done, especially if the list were coupled with the suggestion that numbers, and not names, should be compulsory. The postman would bless the alteration; the caller and visitor would welcome it; and it might dawn on the mind of the builder, the owner, and the Town Council, that absurdities are, after all, more damaging than they imagined. Is it too much to hope that the suggestion may reach the eyes of some well-disposed person, and that when next we visit this otherwise estimable town Ye Olde Ruin will simply be No. 60, let us say, instead of the grotesque annoyance to our reason which insults us every time we go seawards?

We say that nothing can be done except the rather negative remedy of depending on individuals appealing to the Press under carefully hidden anonymity, but if our public bodies recognised the importance of matters which involve no expense to the ratepayers is there any sound reason why it should not be made compulsory to obtain the approval of a local authority's committee before naming a house?

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What Is and What Might Be.

We illustrate this week Lloyds Bank at Rye as it is, and as it was before the directors very wisely employed Mr. Horace Field to convert one of the commonplace stock designs which spoil our towns into a more simple front in complete harmony with the old township of Rye. To a certain commonplace type of man a building is valued by its costliness or pretentiousness. A building with stone dressings is better than one without; a building with a dome turret or gable better than one with a quiet and simple roof-line. Texture of materials and traditions of locality are to such people undreamed of, and it is to such clients and the architects who design for them that we owe the buildings which make our towns distressing to people of cultivated taste. It will be observed that had alternative tenders been invited for the Rye Bank according to the first design and the second, that Mr. Field's scheme would have been the cheaper. Instead of traceried stone dressings we have brickwork and tile hanging, while the windows are sashes. More than this, Mr. Field has evidently contrived to make use of the roof by placing rooms there, whereas originally the building either had no accommodation there, or else its windows looked out to the back. It is pleasing to find that the heads of a great commercial undertaking like Lloyds Bank are alive to the considerations we have spoken of, and it is of good augury that they should employ an architect whose work is always distinguished for its quiet simplicity and good taste. We believe his first work for them was the remodelling of the ground-floor of some speculative premises in Finchley Road for purposes of a bank, and the work he has carried out for them since shows that they appreciate architectural quality in design.

We are living in an era of high costs and difficult finance, but there is much useful work which architects could do for the owners of inconvenient, badly-planned, and indifferently designed buildings which might with financial advantage to the owners, be done even now. The remodelling of buildings is a fascinating study, and one which is too often neglected for more ambitious exercises in design. And yet there are few buildings in districts with commercial possibilities which could not be profitably rearranged by a really skilful planner, often at a comparatively small expense. The *modus operandi* in these cases is to imagine what might be done if it were possible to begin anew, and then see how far it is impossible to modify existing facts to fall in with such schemes.

In a large number of cases the modifications will not be found to entail more expense than a scheme of a designer who allows himself to be obsessed by the existing difficulties produces. The cases we have been discussing are those where utilitarian factors are an important element, but outside these are many smaller instances where æsthetic points alone are in consideration. We have the case of old Georgian fronts which have been hacked about, window openings have been filled in with plate-glass or mullioned frames, a front doorway has perhaps been mutilated, and a segmental fanlight robbed of its dividing bars. In such cases a very moderate expenditure would often restore a building to its original design or something even better, and such a treatment is infinitely more sensible than spending money in refronting. Or we may, on the other hand, have the case of a mid-Victorian front added on to an old eighteenth-century building where refronting is necessary. If we could in the next few decades do away with some of the worst results of the decades between 1860 and 1890 our towns would be pleasanter places to live in and the expense of such reconstruction would often be comparatively small.

The erection of great public buildings is always important, but will not level up the quality of architectural design to any very marked extent, for public buildings are few in number and are only occasionally built. It is the great mass of the private buildings in town and country on which our general estimate of the architectural quality depends, and even here the erection of new buildings is not for some time likely to be great in volume. But it is in the possibility of improving and altering what we already have that most work may be forthcoming in the next few decades, for the high cost of building and financial conditions put a premium on the retention of what we have, while, at the same time, new wants and changing conditions make their retention in many cases difficult or inconvenient. Powers to deal with displayed advertisements in every form in our towns, and powers to regulate shop fronts and the ratio of apparent support on which they rest, are also urgently required; with them and a certain amount of well-considered alteration we might sponge out a good deal deplorable mid-Victorian vulgarity which annoys us at every turn, for the æsthetic gods of those days had veritable feet of clay. We have advocated teaching students to design buildings adjoining others as an exercise to show them how to consider the appearance of buildings en masse. We would also urge that they should turn their attention to the equally important one of devising alterations and improvements to existing structures. Few of them will be called upon to design subjects as ambitious as those usually set in a students' competition, but most of them will have sooner or later to struggle with the difficult alteration of some building or other, and it is well to have had a little preliminary practice.

Illustrations.

LLOYDS BANK, ANDOVER. Horace Field, F.R.I.B.A., Architect.

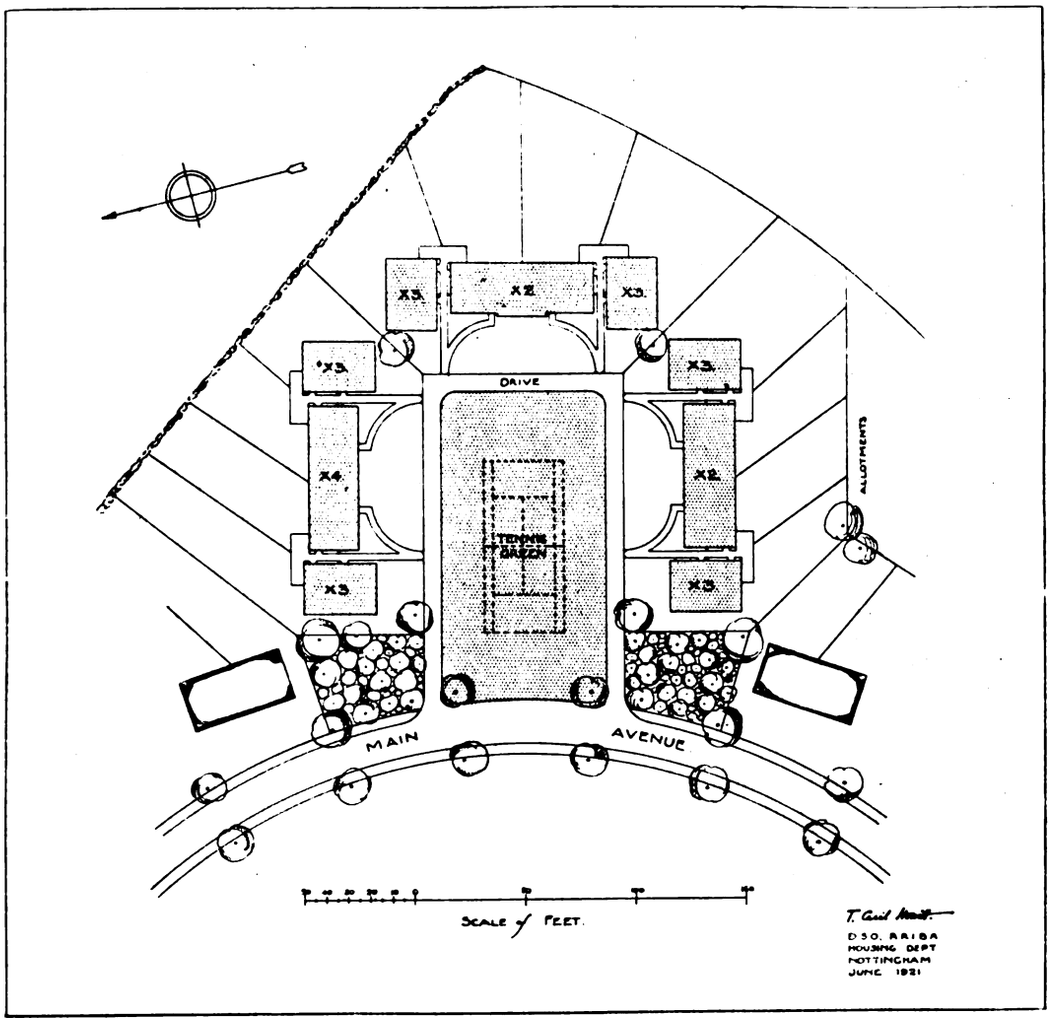
CITY OF NOTTINGHAM HOUSING SCHEME. T. Cecil Howitt, D.S.O., A.R.I.B.A., Architect.

For some time past the Housing Department of the Nottingham Corporation has concentrated on the question of producing reasonable housing accommodation at a cost of £500 per house. It was found that the only possible way to attain this low figure was to build houses of the bungalow type.

A scheme was therefore prepared for a small self-contained group of twelve bungalows on the Highbury Road site, Bulwell, and tenders were invited in the first half of the present year from suitable contractors who could rapidly deal with this specimen group. The lowest tender was received from Messrs. T. Barlow & Co., of Nottingham, and their price was £497 per bungalow absolutely complete, including all the necessary footpaths, fences, and drainage. The scheme embraces three type designs to suit the various aspects, and the external dimensions of each type are exactly similar in order to standardise the roofing. The great disadvantage of excessive frontage required for bungalows has been considerably overcome by the introduction of detached bungalows placed end-ways on, thereby obtaining a reasonable average frontage for the whole group.

The accommodation is up to the standard at present allowed by the Government for a non-parlour house, and one of the three bedrooms could be used as a parlour where only two bedrooms are desired. There is an entrance hall of a good size in each type, and the small built-in gas fires in the parlour and main bedroom are more appreciated than the somewhat inferior mantel registers allowed. The passage-ways through the living rooms have been reduced to a minimum, and so arranged that they will not interfere with the easy chairs around the fire. The living-room fireplaces will be fitted with either Interovens or Excelsior ranges according to the class of tenant anticipated, and in either case there will be back boilers to these to give an adequate supply of hot water to the sink, lavatory basin, and bath. This adds a good deal to the expense as compared with a copper-fed or geyser-fed bath and sink, but the extra cost entailed

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BLOCK PLAN OF BUNGALOWS, CITY OF NOTTINGHAM HOUSING SITE, BULWELL.

would appear quite warranted in view of the very great advantage obtained.

This is the first Nottingham type design where the w.c. has been placed in the bathroom, and it is recognised that this is subject to a little criticism, but at the same time a good deal of expense has been saved by this principle.

The foundations are to be constructed in ordinary brickwork to the damp-course level, and above this point the outer walls are to be in 2 in. brick grip blocks reinforced with diagonal wires on either side. The outer surface is to be finished with 1 in. of cement stucco treated with Pudlo and the inner surface with cement plaster. The stucco is to be finished with colour-wash and the plinth tarred. The internal partitions will be in 2½ in. concrete slabs, and the ceilings in composition boards or plaster slabs.

The roof is to be constructed on the purlin and boarding principle and covered with felt, and red asbestos tiles with a specially large lap adequate to the somewhat flat pitch. Owing to the great cost of light castings the eaves' gutters will be built up in wood and tarred on the inside. A large projection has been given to the eaves and verges to improve the general effect.

The "H.H." gas fires from the Davis Gas Stove Co. will be used, and specially built brick flues will be formed for these, terminating under the eaves or in the centre of the gables with a special extract vent brick. All the rooms not fitted with fireplaces will be adequately ventilated with ventilating grates. The windows of the main rooms will have in addition to the usual side hung casements, top hung hoppers, and the living rooms will have French casements that can be folded right back. In some cases the bathrooms will be fitted with a combined bath and lavatory basin to assist the floor space.

An alternative estimate has also been arranged whereby the outer walls can be constructed 9 in. thick, consisting of a 4½ in. brick wall on the outside, a 1½ in. cavity, and a 3 in. plaster slab on the inside, the two thicknesses being secured together with galvanised iron ties. The internal partitions are also to be in plaster. The plaster slabs in all cases will be cast with a finished face and set in plaster. By this method a very great percentage of the plasterer's work would be saved, and the bungalow could be much more speedily occupied. This method would be a very great boon in view of the very great shortage of plasterers throughout the country. The cost of the bungalows in this alternative construction would be £519 each all inclusive as before.

The designs have been prepared and the scheme organised by Major T. C. Howitt, D.S.O., A.R.I.B.A., housing architect to the Nottingham Corporation.

TWO COTTAGES AT WIVELSFIELD, SUSSEX. L. Keir Hett, F.R.I.B.A., Architect.

These cottages, which are now being erected for Charles Hales, Esq., on his estate in Sussex, are built of local stock bricks with a few dark reds introduced. The vertical and roofing tiles are local, hand-made and sand-faced. The architect is Mr. L. Keir Hett, F.R.I.B.A., Paternoster House, E.C. 4, under whose supervision the work is being carried out by Mr. E. H. Munnion, builder, of Ardingly, Sussex.

LLOYDS BANK, RYE, as refronted. Horace Field, F.R.I.B.A., Architect.

Many charming old villages or small towns have one or two buildings so much out of harmony with them that they ought to be refronted.

In the old-fashioned town of Rye is a good example of what can be done. Among our inset illustrations we give two illustrations: one showing the building as it was, the other showing the building as it is. In addition to refronting the building, the slate roof has been replaced with tiles. The town is indebted to Lloyds Bank, who occupy the premises, for beautifying it. Mr. Horace Field was the architect, under whose supervision the work was carried out.

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Notes and Comments.

The New President of the R.I.B.A.

Mr. Paul Waterhouse gave an admirable inaugural address at the R.I.B.A., which as usual showed both scholarship and freedom from prejudice, and which was not less effective for its brevity. It is refreshing to listen to a speech which does not contain a programme of reforms meant to revolutionise the world, and it is gratifying to find that the President does not in this imitate our great politicians. Mr. Waterhouse alluded to the curious fact that his father was the fourteenth President, while he is twenty-eighth on the list. It may be that history will further repeat itself, and that his son will be the forty-second President of a greater Institute, for we are not satisfied with geometrical as opposed to arithmetical progression. If this should be we may be sure that the profession of the future will be as delighted to honour a scion of a family, who have been long and honourably connected with it, as his colleagues are to-day to welcome one of their most popular members as their President. We are sure that Mr. Waterhouse is at one with us in believing that the good working of administrative machinery as it exists is worth more than the devising of new machinery, coupled with the faulty use of what we possess, and this may be taken as the wish of everyone in national as well as professional circles.

The Old Battle-Grounds.

Mr. Waterhouse briefly spoke of the vexed question of styles, and, if we may gather from what he did not say, is a little doubtful whether the enthusiastic belief in a greater measure of classicism really rests on a sound basis as applied to our national architecture. If we have rightly read his meaning we are in agreement with him; for the chief fault of the Gothic revival was its whole-hearted intolerance. Our whole national history, of which our architecture is an expression, is one founded on compromise, and we have not the Latin disposition which often leads to an uncompromising rejection of what cannot be made to fit neatly into a logical thesis. Wren and Inigo Jones were nearer to an understanding of the national temperament than Soane and Cockerell, and an attempt to bring the national style in line with the later phases of classicism can never be completely successful here. We agree with Mr. Waterhouse in thinking that the capture of American architecture by classicism is one of the most remarkable events in architectural history; but it has been made possible by three factors: the first being the comparative absence of older buildings; the second, the enormous rate of progress of the country, bringing with it great necessity for new buildings; and the fact that America, though English-speaking, cannot be described as being English racially, but is the result of a gradual fusion, of which very strong Latin elements are one of the ingredients; while lastly, our cousins are dealing with climatic differences of a different character to those in this country.

Proposed Parliament Buildings for Northern Ireland.

We consider the protest of the Ulster Society of Architects that no direct appointment of an architect ought to be made in the case of the Belfast Parliamentary Buildings is entirely justified. Considering the issues involved it would be infinitely better to invite competition, and the suggestion that time will not permit of the holding of such a competition seems to us to be absurd. But if speed is so important we suppose the architects from whom a selection will be made will be asked like contractors to state in what time they are willing to undertake to complete their work, and what penalty they are prepared to pay for delays beyond such period! If a direct choice is to be made we hope it will be between the claims of Mr. R. M. Butler and Mr. Arthur Hill, since both are Irishmen, and each of them has carried out work of the first quality and importance. The claims of Irish architects should, we think, in a case of this kind have prior consideration to those of their English colleagues, though we might add we should have preferred to see the matter decided by a competition for preliminary sketch-designs, which could be settled within a period of three months.

Architects and National Taste.

Professor C. H. Reilly gave a lecture on the subject of "Architects and the National Taste" before the Liverpool Architectural Society, in which he spoke of the architect as a director of taste, and the difficulties created by the existence of a large uneducated moneyed class, who felt free to exercise any whim or fancy they could pay for, and found architects to carry out their behests. Unfortunately there are architects and architects, and we are afraid many of them have not any more taste than their clients; in fact, we believe that some of the very worst atrocities perpetrated have been the work of architects. For some men have an entire want of perception in the all-important element of proportion, while others have, in addition, a keen delight in piling on the Pelion of a badly proportioned building the Ossa of bad ornament. We think that Professor Reilly is both wrong and unfair when he says that Norman Shaw has been directly responsible for more suburban ugliness and ostentation than any influence since "the German invasion." Query, what invasion is this? It was not Shaw's fault that his work which aroused a people, grown tired of lifeless mid-Victorian architecture, to an interest in buildings should have been imitated by many who could not understand it, but it is to Shaw's credit that it did interest them, for that revived interest was the first sign of the convalescence of the patient. We believe that Shaw will be remembered as a great architect when a number of the classicists of later days are forgotten, but perhaps, as Monte Cristo put it, we "have a right to be unjust to our own countrymen!"

Why Not Go Further?

At a meeting of the National Society of Building Trades Operatives, held at the Fulham Town Hall, to consider the subject of a proposed extension of working hours, we are told that an announcement that "if any further alteration is deemed desirable it will be a reduction of the working week from 44 to 40 hours, and no work on Saturdays." Mr. Gosling said that in the Eastern Counties men were unanimous for the retention of the 44 hours week, and that employers were trying every means to reduce wages. We cannot think why these inflammatory gentlemen consent to work at all. Surely it would be more reasonable to ask at once for State support to be accorded to all! Fortunately there are signs that the meetings of which we get the reports by no means give a true picture of the views of the average working man, who is coming round to the view that it is not really unreasonable to expect him to "do his bit" by helping to keep industry going, as he "did his bit" in war time.

The Guy Fawkes Ball.

The R.I.B.A. Galleries have witnessed many different kinds of gatherings, but in none was the contrast sharper than in that on two successive evenings last week. On the first night a somewhat strangely assorted professional and non-professional audience listened to a Chadwick Lecture on "Dry Rot" with all the sobriety that such a subject demands. Twenty-four hours later a multi-coloured, joyous crowd of dancers, drawn from all the ages and all the worlds, listened to a Jazz Band with all the seriousness that that, too, demands of those who would keep in step. Both these two events were unqualified successes, and both, no doubt, will confer lasting benefit on those present. To have obtained a complete topsy-turvy effect it would have been necessary to have inveigled the "Dry Rot" audience to the Guy Fawkes Fancy Dress Ball, and to have treated the unsuspecting dancers to the stimulating lecture of Professor Groom.

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London Art Galleries.

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Three London exhibitions of considerable interest opened on Thursday and Friday of last week at the Leicester Galleries, the Fine Art Society, and Walker's Galleries. The first of these in order of time were the water colours by Romilly Fedden, and water colours and etchings by Martin Hardie, R.E., at Walker's Galleries. Mr. Romilly Fedden's special subject here is Tangier, though he occasionally migrates to other sunny lands, such as southern France, Italy, or California. Morocco this autumn has been a good deal to the front in London galleries, and in these columns we have studied this subject in the paintings of Mr. Gordon Coutts and Sir John Lavery: but Romilly Fedden's point of view is individual, and is that of a colourist, to whom the wonderful fascination of this corner of the Arab world strongly appeals. He gets something of its mystery in such subjects as "Tangier Bay, Moonlight," and "The Gate of Silence," where, by the by, the black frame with a narrow line of gold—as also in "The Little Grey Mosque"—is very telling. Mr. Fedden must have worked very hard in Morocco, for I understand that all these sixty studies were finished in one winter: technically they are put through in broad washes, and I should imagine in one painting: they are unequal, but some of them reach a high level—including, with those mentioned, "A House Top in Tangier," "the Port Gate, Tangier," "Night, Tangier," "The Market Place," and "When the Moon Comes Over the Hill."

In the next room Mr. Martin Hardie, R.E., impressed me most by his etchings, ten of which, exhibited here, are of very fine quality, "The Day's Work Done, Martigues," being a good example; and among the water colours I selected "La Pointe de Brescon, Martigues" and "Evening, Martigues," with "The Road to Southwold," a little water colour which has something of David Cox's inspiration.

At the Fine Art Society the Memorial Exhibition of Sir William Blake Richmond still occupies the first room, but the two inner rooms are taken for an exhibition of Cecil King's water colours, and a very remarkable display of silver from the workshop of the Danish silversmith, Georg Jensen. "The artist Georg Jensen,"—said M. Emile Sedeyn—"chooses to make our useful things beautiful. Cups, spoons, salt-cellars, teapots, sugar-sifters, everyone of them he has transformed to a little piece of art; he refuses to let the machine spoil the lovely material, everything has been worked by hand, every little detail shows the artisan's love for his work. His forms are as simple and dignified, and possess the same grace and noble line as those of the antiques. They combine modern convenience with the ancient grace and execution . . . His secret lies in the understanding of the intimate connection between the artisan and the artist."

In the silver now being shown at the Fine Art Society we find these words of the French critic fully borne out. Georg Jensen was a sculptor before he specialised on this branch of art work; and the forms of his design are dignified, almost severe, recalling strongly to my mind the silver work in some cases of the early Georgian period, without being in any sense a copy. In the inner room Cecil King shows some good water-colour paintings, restrained in colour (I admired particularly here his "'Waterloo Bridge," with its cool grey tonality, and another study near it of "Barges Below Bridges," also appearing to be of our Thames) and in good drawing. Very noticeable is his fine handling of warships, with their by no means easy detail, in "Oiling at Gibraltar," and "In the Bay." Before leaving this Gallery I must give a few words to the memorial exhibition of that fine artist, Sir William Richmond, one of the greatest of the Victorian painters. His work in portraitures, figures and landscape stands before us here, and I consider fully bears the test of time and changing art fashion. This may not be the precise way we paint portraits now, the methods of Lavery, Orpen, or John, but these figures of Bismarck, Gladstone, Morris, or Browing, are noble and dignified creations, and Mr. Jacomb Hood has recently said very truly of these, "the technique is of that quality which is the fine art which conceals art; there is no display of brushwork, but subtle modelling and fine subdued colour." In the landscapes we see how the artist was a life-long lover of Italy: how fine here is his Monte Oliveto, or his "Rocks of Capri," looking sheer down into the fathomless blue. He was a master of the figure: in "The Garden of Hesperides" there is a stir of agitation, a sense of impending tragedy in the nude forms of the guardians of the golden apples, and it is surely Eve who receives the fruit in another garden, though the subject is only marked "Study," while some of the draped figure drawings in white chalk on brown paper come near to those of Leighton.

Last week the Leicester Galleries opened with a triple exhibition of paintings by Albert Rutherston, drawings by Jean François Millet, sculpture by Frank Dobson. The last-named artist includes with his sculpture work a certain number of framed drawings, mostly nude studies: why such studies as these should be in colour at all—for instance, we observe a "Crouching Woman" in orange-chrome, another nude study in a kind of lemon-yellow or gamboge, and so on with others—it is difficult to see, for we can scarcely imagine they are intended to resemble any human flesh-tints. But, after all, these are in most cases working drawings, used frequently in the sculptures shown here, and as such their colour is not very material. The "pièce de résistance" here is the bust of Mr. Asquith, which I should imagine a good likeness, especially from the side view, though somewhat stouter than I had imagined the sitter; but then I have not had the privilege of seeing this distinguished statesman since a grateful country gave him a rest from the cares of office. Mr. Dobson is evidently what one may call a direct worker, and it is fair to judge him from that point of view. For example, in his "Man-Child" his preoccupation has been, I imagine, to get his three figures in the dimensions of the block of Portland stone before him. The leaden "Head of a Youth," clever in character, is too narrow from the cheek-bones across, judged by the head as a whole.

In the next room we find drawings, also for scaffolding, by the great artist Jean François Millet, who, happily, did not put his figures in gamboge or yellow ochre, and was also a fine and accomplished draughtsman. Look at the perfect drawings of hands—a test of drawing—in these studies (87), and (113) of feet, (69) and of drapery. These are in most cases studies for his scenes of French peasant life, the work of a sincere and great artist. A study for "The Angelus" is among them: the "New-born Calf," though a mere impression of movement, is delightful. More finished is "Knitting," a shepherdness with her flock around her. Mr. Rutherston's paintings on silk ("Chloe" and "Evening Bather") and drawings for fans in the next room are charming and decorative.

An exhibition of summer work by members of the Architectural Association, opened last week at 34-35 Bedford Square, deserves mention here. I enjoyed particularly two studies by Mr. W. G. Newton, P.A.A., their subjects, a "Lake Scene," and another scene taken from Verona. Several of the members have gone to Italy for inspiration, notably Mr. Cyril A. Farey in his painting of the Palazzo Rezzonico at Venice, and Mr. Bucknill in his "Piazza Signoria" at Florence, with Ammanati's bronze nymphs, and his study of the Ducal Palace at Venice. J. F. Wilson, in his view of St. Paul's from the river, has sought inspiration, with success, nearer home; and there are two oil sketches by Walter Bayes. I may mention last two photographs by Mr. F. R. Yerbury, Secretary of the Association, of which I admired especially a study "On the Chilterns."

S. B.

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The Royal Institute of British Architects.

The opening meeting of the Royal Institute was held at 9 Conduit Street, W., on Monday, November 7. Mr. Paul Waterhouse, M.A., F.S.A., President, in the chair. There was a large and distinguished gathering, among the visitors being the Earl of Crawford and Balcarres, K.T., P.C.; Right Hon. Lord Sumner, P.C., G.C.B.; Professor J. W. Mackail, M.A.; Sir Charles Holmes (National Gallery); Sir Anthony H. Hawkins; Mr. A. B. Walkley; Mr. S. E. Downing, LL.B., B.A.; Sir Sydney Russell-Wells (Vice-Chancellor University of London); Right Hon. Lord Charnwood; Mr. James Haynes; Mr. H. Godfrey Evans; Sir Henry Newbolt; and Sir Lionel Earle, K.C.B., C.M.G.

It was announced by the Secretary that the candidates nominated by the Council for election on December 5 numbered 15 Fellows and 111 Associates.

Mr. Paul Waterhouse then delivered the following

Inaugural Address:

The great and good Earl de Grey was, as the "Kalendar" and history will tell you, the first President of the Institute. He was a statesman who in his time played many parts and a man who was so willing to give to our Body the prestige of his name and the help of his personality that he held the presidential office to our great benefit and to his own honour for no less than a quarter of a century.

That is one reason why, gentlemen, though the Institute is eighty-seven years of age, I have only had twenty-seven predecessors in office. The other reason is that though two or sometimes three years have been the normal spell of service, Sir William Tite alone of all the line was persuaded to come back to the chair for a second period of captivity after four years of freedom. But in those days Tite was no longer an architect—he had retired; he retired at about fifty-five years of age; and his energies outside the Institute were devoted as a bank director to banking, and as a member of Parliament to thwarting the Gothic tendencies of Sir Gilbert Scott.

I do not propose to give here a history of my twenty-seven forerunners. Out of the whole number I have personally known seventeen, and there is no reason in the nature of chronology why I should not have known by sight several more. In fact, there are architects in our midst, men of still active energy, who were born before the first of our presidents died. It is perhaps a curious fact that while my name is the twenty-eighth on the list my father's is the fourteenth.

It is a happy and pleasant thought that out of my twenty-seven predecessors no fewer than eight are still very much alive, and among them I venture to reckon—if they will allow me to say so—some of my very best friends. Our past presidents form, though we may not always recognise the fact, a kind of House of Lords in their relationship to the Council. No one but a president, or one who has been closely associated with the duties of this chair, can know what the temporary chief of our brotherhood here owes to the fact that he can lean at times of difficulty on the strong support of those good men and true who have been through the career before him. I give here no hint of dependence. A president must fight his own battles or, if happily there are no battles, must at least steer his own course; but the post is one of a certain isolation, and the sense that there is at hand among a body of tried friends sympathy, counsel and advice, is a boon which no sound president can wisely disregard.

Our procedure affords, to my mind, too little opportunity for the free acknowledgement of certain past services. I want, with your leave, to make such an opportunity for myself by saying a word about one or two friends of mine, and of yours, whose modesty will resent every word I say.

No one will ever adequately say or perhaps know how much modern architecture as a profession owes to Sir Aston Webb. His singularly happy personality, welcome in all kinds of society, crowned as it has been by his appointment to the courtly post of President at the Academy, has won for all his colleagues an honour and recognition for which we may be always grateful. Sir Ernest George has emphasised as few others before or since the gentleness—I can think of no better or nobler word—of a true artist's life. Thos. Colcutt is a name that has meant to me virility of execution, strength, courage, and, not least, great friendliness. Of Stokes in his day we knew the force and fire. If fire and force have in later years been dimmed by untimely ill-health we must never forget that it was his Atlas back that bore the weight of the new birth of the Architectural Association. I think with pride of the fact that I sat at his (literally) round table in Storey's Gate in the days when he chose to attribute to the collaboration of others the great educational movement of which he himself was the real mainspring.

I have mixed these metaphors, but they are better for the mixing.

Sir Reginald Blomfield, an old personal friend, has shown, as few modern architects have shown, how the literary and historical career can be successfully linked with the practical and creative. We owe him much for this, for in the first place he has given the lie to the theory that such a combination is impossible; and secondly, he has done honour to our Institute by the respect in which his written words are so widely held.

Lastly, among living men I come to Mr. Ernest Newton and Mr. John William Simpson.

We tried at the end of the war to tell Newton on a little script of parchment what we thought of his work as president during the terrible subversion of our civilisation that our world went through. I hope it will always be remembered of Newton that a man whose happiness consists, I believe, in the creation of some of the tenderest and most tranquil of domestic architecture said to himself, "Here is an exceptional and perhaps uncongenial job ready for me to do. It is a call. I will answer it."

Some of us know with what tact and grace, but at the same time with what infinite labour, and I suppose, fatigue, he laid hold of and carried through that heavy undertaking.

John William Simpson has made my own task an extremely difficult one. I was going to say that he was a born chairman, which indeed he is; but as he can also be described as a born administrator and a born after-dinner speaker as well as a born architect and a born writer of humorous letters, I am in danger of calling up by my language a rather strange portrait of the infant Simpson in his cradle. Let it suffice to say that his rule of the Institute—I don't hesitate to use the word rule—was to my mind a very masterly exhibition of a range of talents which not by any means every good architect possesses. His time was a difficult time, and he surmounted his difficulties, facing odds of ill-health with remarkable pluck, and with a skill which sets his successor one of those examples which though inspiring are also terrifying.

I cannot refrain here from a few personal words. It is difficult for me to tell you, my friends, with what emotion I occupy this chair. I can't pretend to be among strangers. I have been an Institute man all my professional life, and most of you know me in a more or less personal way. Perhaps it is the very fact of my being so entirely at home in this room and among these familiar faces that gives me the sense of anxious responsibility of which I venture to speak. I have felt ever since I came within reach of the chair that others would fill the office better than myself, and I should never under any circumstances have done anything to encourage my chances of getting here unless indeed ordinary work for the Institute can be interpreted as encouraging these chances. But it was the clear wish of some of you that I should be nominated, and being elected I need not disguise from myself or from you the fact that to be your President is an honour which no architect who

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believes in the brotherhood of Art can possibly despise. I live, as it happens, a life of which the duties are sometimes complicated and numerous. My time-table is at times, like that of all busy and happy men, an outrage on the eight-hours day. But such as I am, I am here to do as far as in me lies the duties you have laid upon me, sure that you will pardon the shortcomings which are certain to reveal themselves. With us every succeeding epoch is by the very march of time more onerous than the past; but I have at least courage, and there is no courage like that of the man who feels sure that he has friends about him.

Among the happy phrases of that most happy writer St. Paul is the expression, "We upon whom the ends of the world are come." Those ends of the world come upon every generation in turn, and would be unbearable were it not that the very ends are after all only beginnings. We picture ourselves seated on the very prow of progress with a long wake behind. But the prow *is* a prow, not a stern: we are cleaving the flashing waters of time, and so far from being at the last extremity of history we should think of ourselves as in mid-voyage, or in a voyage less than half begun. I said that I believed in the brotherhood of architects. I do. I believe not only in the bond that unites all of us as contemporaries, but equally in our joyful bondage to the men of the past. And having got so far, may I say that I believe just as much and just as joyfully in our union with the untold ages of architectural toilers who are to follow. Our duty towards them is amazing in its force.

Some of the aspects of modern architecture are so remarkable that I want, with your leave, to devote the remaining minutes at my disposal to-night to some consideration of them.

We architects are set in the midst of critics: the whole world of intelligent opinion—to say nothing of the world of unintelligent opinion—is perpetually on the watch to offer us warning and advice. For the most part we pay but little heed to the advice or the warning: We go on our way, we take our own course; we have our own courage, and if attacked we sometimes—but rarely—attempt a reply. What are the lines of our defence, and what is our bulwark of justification? This is a serious question. It deserves a serious answer Can we give it? Let me say at once that the answer is a difficult one to frame. Our confidence is no vain confidence, but on what is it founded?

I venture to think that the very difficulty of our reply is based upon some qualities of architecture which are none the less important because they are obscure. The obscurity is an obscurity inherent in the nature of our art itself. And if it remains an obscurity even to ourselves that is no proof of ignorance, still less of inefficiency, on our part. It is a proof rather of the great depth and height of a mystery which of itself ennobles architecture.

Look at the matter historically, and some facts will emerge.

Some of us are old enough to have been fanned in our youth by the later breaths of the Gothic revival It is easy to say that it broke like dawn with a gleam of sincerity upon a world whose darkness was getting tired of sham and pretence in architecture. Easy to say, but quite untrue. When shall we say that the Gothic revival began? Like most decent architectural movements (and it *was* quite a decent one) its beginnings were graduated, but I suppose it would be safe to say, without worrying about sporadic surprises of early days, that it opened in 1825.

The great Gothic manifestation of the moment was St. Luke's, Chelsea. I do not abuse St. Luke's. I admire it (in one of the senses of the word "admire"), but as far as truth and sincerity go I would just as soon have its contemporary, the now destroyed Hanover Chapel by our first Architect-President, Cockerell.

Of course, my comparison is rather unfair. It would be more just to the Gothic workers if I were to take a later and riper product of their movement. I might come on to the Houses of Parliament, the foundation stone of which was laid in 1839, and set against it Barry's classic work. Enormously as I reverence the Palace of Westminster, a giant's effort which, instead of being a giant's failure, is a giant's triumph, I cannot feel sure that as architecture it has a truer claim than the works of the same designer in his Roman and Italian moods.

The fact is that the sincerity plea will not on its own carry the Gothic revival into heaven, and if by sincerity we mean common sense, it is certain that sincerity is no real criterion of art.

It is true that quite early in the Gothic days people began saying that the Gothic movement was the pathway of truth, and that its mission was the extirpation of pretence. The penumbra of Ruskin was heralding Ruskin's approach, but for us to say in these later days that the battle was won—as far as it was won—because one style was righteousness and the other deceitful sin is to misunderstand not only the nature of Art but in particular the nature of architecture.

The true strength of the Gothic revival lay in the fact that as it went on its way it eventually made architecture unconscious: by which I do not mean ignorant.

Its impetus was that of religion and romance, its strength was not that of the rejection of a supposed false Archæology in favour of a reputed vernacular style. The archæology of it was its nourishment in two senses, the first being that without search into the facts of the past no modern architect can achieve taste, and the second that what we call archæology is after all a mere quarrying into the pit whence we were digged.

And this is one of the points I want leave to make to-night. We talk of archæological study on the part of an architect as if it were a fumbling among dry bones. It is nothing of the kind, unless indeed it take the form of a plunge into the archives of some alien civilisation with which our race has no blood affinity.

Do we realise, any of us, that if we were to invite our direct ancestors as far back as the reign of Augustus to an evening party we could get them all into less than a quarter of this room. If each of us were to follow the direct male line, inviting his father's father, his father and so on, the whole company from the year nought to the year now would only be about sixty persons. The Renaissance is looked upon as a great revulsion, but the men of the Quattrocento were only forty-two generations off the golden age of Rome, and we of to-day have only a score of ancestors between ourselves and that glorious century that saw the building of Salisbury Cathedral.

To-day history and archæology, or for that matter the simple study of still-standing stones, take the place of the traditions of the mediæval or premediæval workshop, and if we are accused of antiquarianism in our study, or of archaism in our practice, let us answer boldly that the trust of a patriot in the past of his race is no freak of archæology, but simply common piety in the Roman sense of the word. It is in fact, respect for the traditions of our race.

I should like to point here to a product of the Gothic revival—a by-product, it is true—which made not for good but for evil. Up to the first quarter of last century every architect studied the classic rules. With the dawn of the Gothic fervour there came a sense that the old foundations were being loosened, and before men came to realise that the new mediævalism carried with it as great an obligation to type as the older classicism, there broke out a sense—a perfectly reasonable sense—that so long as an architect exercised his taste he couldn't be acting amiss. With that sense came licence, and with licence a display of work, specially in our London streets between, let us say, 1850 and 1875, which, while it remains unbroken or unburnt, will be a reproach upon our country. I said it was reasonable to let taste be the criterion. It was. But there is no taste without knowledge, and I question if reason is in architecture a qualified judge. I am willing to be misunderstood if

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I say that there are realms where reason is not supreme. What is reason? I suppose it is civilisation's substitute for instinct; and without instinct there is no art.

But time advances. I have entered too big a subject. Rather than leave it with a ragged edge I will ask you to let me express the rest of the train of thought in separate sentences, begging you not to think from their form that I regard them as epigrams or aphorisms.

Archæology in architecture is not the refuge of exhausted imagination: rather is it the resource of a spirit of art which, seeking rest and finding none, returns home.

The past is the mother's milk of our growth.

The roots of architecture are as important as its branches, and are the conditioning causes of its true fruit and flowers.

While good manners are civilisation's device for the smoothing of intercourse between contemporaries, tradition is civilisation's device for the still more important intercourse between the men of old and ourselves, between ourselves and the men to come. Let us never be guilty of a breach in our link between future and past.

If evil communications corrupt good manners, evil manners make corrupt communications.

Finally, a last thought. It seems a far-fetched one, but if you will consider it, it goes to the very heart of the matter.

The most wonderful fact in modern architectural history is not the capture by America of classic architecture, but the capture by classic architecture of America.

Vote of Thanks.

Lord Sumner, in proposing a vote of thanks, said he believed he owed his privilege to the fact that he had known Mr. Waterhouse for over forty years—though there might be people in that room who could make the same claim. He (the speaker) was prepared to assert that he had never met anybody who did not like Mr. Waterhouse. He had no idea, however, Mr. Waterhouse could at one and the same time charm and instruct and be both learned and popular. There existed a further mutual bond in the fact that he and Mr. Waterhouse were both born in the same city; they were natives of no mean city—the city of Manchester—which was adorned by two buildings celebrating the name of Waterhouse. He had come that evening in the belief he should hear something about the great art of architecture. The inaugural address appeared to range over most subjects of literature, and many of art. There was a reference to Sir Gilbert Scott and patronising allusions to St. Paul. But he had heard less about architecture than he expected. He would like to make an appeal to the R.I.B.A. during the forthcoming golden period to do something for the education of people like himself who would fain believe that under more favourable auspices they might have become architects also, but in actual fact find themselves no more than atoms in that abode of gladness. Among the many milestones of his life he remembered two books on architecture. One was "The Englishman's House," a most fascinating book to a boy, and from which he learnt to read plans. The other was Eastlake's "History of the Gothic Revival," but on going to see most of the buildings in the latter book he found them not so good. Those books gave him a profound interest in, almost a profound passion for, the master art of architecture. Would it not be possible to do something to educate men like himself further? People were walking about the streets of great cities seeing some buildings worthy of their intelligent critical attention, but about nine-tenths of the rest ought not to exist. If people can learn why, they have learnt something. Everybody visits picture galleries nowadays. The great bulk of English people know and hear nothing of English architecture. Yet anyone of them might become First Commissioner of Works! Anyone of them might be chairman of some ratepayers' association, county council, or board of guardians which requires a suitable building for their activities. Could nothing be done to make the ordinary man appreciate that irrespective of the moral side of architecture—that honest work ought to be fit for service apart from archæology—there is the greatest possible satisfaction to those living in great cities if the eye can appreciate mass, proportion, light and shade, colour, skyline, and the relation of buildings to their surroundings. He did not know how the intelligence of the public was to be reached. No art which was obliged to expend itself in great and costly buildings could thrive until it had educated the paymasters. He appealed to the Institute to teach the average man how much delight was to be got from inherited fine buildings, and how much from destroying unworthy ones so that the good might be left.

Sir Henry Newbolt, in seconding the vote of thanks, said he had followed with great attention the extremely deft and difficult discourse which Mr. Waterhouse had given. The thread of the argument was not easy to follow. Mr. Waterhouse had made two great points. The first was about the brotherhood of the arts and the second was about time and style. As a poet he (Sir Henry Newbolt) possessed a special interest in architecture. There was no slight or superficial resemblance between poetry and architecture. Both fulfilled the same function; both took material from the common earth, and by an act of craft transformed it into something entirely new and of an entirely different kind. They both keep very closely connected with the material and to the needs of human life. The whole career of a successful Englishman might be expressed in architectural terms: during the first part of his life he was the architect of his own fortune, during the second he was the fortune of his own architect. The reward of the architect and poet was, however, very different. If a man wanted his common dull life transmuted by poetry it could be done at an extremely low rate: the poet to the Sovereign received about £3 a week. But there was not a single architect who would so give his service for £150 a year. When he was young a care for architecture used to be common among all the people of these islands. But he did not notice that love now. It was a serious loss. A knowledge of architecture ought to be part of the equipment of every educated person in this country. He was prepared to go further than Mr. Waterhouse as to the brotherhood of art. Nothing united men more than the community of pleasure drawn from the arts. He believed it was more natural for an architect to sympathise with a poet, painter, or musician than with a butcher, baker, or candlestick-maker. The best thing we could do to become a homogenous people would be to spread a knowledge and taste for the arts. There was no common factor between men of a really binding nature other than love of the arts. It was possible that among the arts architecture might be proved to be one of the greatest. Every nation could have its own architecture, and yet admire that of other nations. There had been no episode during the late war which so united the Allies as the destruction of Rheims Cathedral. But what was even more significant was the statement of a German General of noble family, who defended the destruction on the ground that any act which tended to discourage the enemy was a right act, and that after the French had submitted the Germans would build them a far better cathedral in the modern German style. That remark touched the very bottom of all art. Reverting to the inaugural address, Sir Henry said he had spent a number of years in speculation upon the nature of time and style. Mr. Waterhouse's remarks were so singularly like his own conclusions that he found himself wondering which of them was the real author. For twenty years he had been preaching that every poet should express himself in the style natural to him. A certain number of people, however, seemed filled with a desire for sensation. He felt these poets would cease to exist as he was sure the buildings erected between 1850 and 1875 will go. He felt grateful to Mr. Waterhouse for saying one more word which would help them to go.

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The vote of thanks was then passed by sustained acclamation.

Mr. Waterhouse very briefly replied, and the meeting terminated.

At the conclusion of the ordinary general meeting, a special general meeting took place for the purpose of considering and passing resolutions with regard to the extension of premises and the amendment of by-laws relating to hon. associates. The resolutions were carried without discussion.

The Hon. Secretary announced that the next meeting will be held on Monday, November 21, when Mr. G. H. Widdows, F.R.I.B.A., will read a paper on "School Design." At the conclusion of that meeting a special general meeting will be held to confirm the resolutions passed at the similar meeting on Monday last.

Glasgow Institute of Architects.

The new session of the Glasgow Institute of Architects was inaugurated last week in the Institute Rooms, Elm-Bank Crescent. Mr. William B. Whitie, F.R.I.B.A., President, delivered an address on "Recent Developments in Professional Affairs." Mr. P. Macgregor Chalmers, LL.D., presided. Mr. Whitie said that schemes for the reorganisation of the profession which were now being evolved had for their principal objects the general advancement of architecture, and the increased efficiency of the service which members of the profession rendered to the public. Architects throughout the country would be invited to apply for membership of the Royal Institute of British Architects, which was and would remain the premier governing body for the profession. The ultimate aim of the scheme for reorganisation and unification of the profession was statutory registration. Parliament would be asked to grant powers under which only those who were qualified and registered would be permitted to use the designation of architect and to practise as such. The lecturer also discussed the closely allied subject of education, and concluded by referring to the Oswald Street bridge scheme, which he said could be taken only as a makeshift and not as a solution of the cross-river traffic problem. On the other hand, the scheme which the Glasgow Institute of Architects had advocated for many years would give adequate means of communication, and at the same time provide a main artery for traffic from the city without encroaching on the central area. A discussion followed.

Forthcoming Events.

Friday, November 11.—London Society. Meeting at the Royal Society of Arts, John Street, Adelphi, W. Lecture by Mr. W. D. Caröe, F.S.A., M.A., entitled "Old London Bridge."

Saturday, November 12.—International College of Chromatics. Meeting at Caxton Hall, Westminster, S.W. Lecture by Miss Grace Ethel Cowell, B.Sc., M.Chrom., A.S.P., entitled "Colour in Persian Mosaics." 3.15 p.m.

Monday, November 14.—Surveyors' Institution. Meeting at 12 Great George Street, Westminster. Presidential Address by Mr. J. H. Sabin. 8 p.m.

Tuesday, November 15.—Architectural Association. Opening by the Rt. Hon. H. H. Asquith, M.P., of the Memorial Library at 34-35 Bedford Square, W.C. 3 p.m.

— Institution of Civil Engineers. Meeting at Great George Street, Westminster. Paper by Mr. F. G. Royal-Dawson, M.Inst.C.E., entitled "The Indian Gauge Railway Problem." 6 p.m.

Wednesday, November 16.—Royal Society of Arts. Meeting at John Street, Adelphi. Paper by Mr. T. H. Lyon, M.A., entitled "Modern Buildings in Cambridge and their Architecture." 4.30 p.m.

— Institute of Plumbers. Dinner at the Connaught Rooms, Great Queen Street, W.C. 7 p.m.

Thursday, November 17.—Institute of Plumbers. Half-yearly meeting.

Competition News.

In the House of Commons a question was asked as to what arrangements had been made in connection with public buildings for the newly-established Parliament of Northern Ireland, and what was the total estimated outlay. Sir John Gilmour replied for the First Commissioner of Works as follows: "As the First Commissioner does not consider that in the present case an open competition would provide the best or most expeditious method of procedure, he has consulted the President of the Royal Institute of British Architects, who has submitted a list of British and Irish architects who could be suitably invited to undertake the erection of the necessary buildings. The First Commissioner is now considering the claims of the various architects concerned, and hopes to announce shortly which architect has been selected. It is impossible at this stage to make any estimate of the cost to the Exchequer."

"The Architect" Fifty Years Ago.

NOVEMBER 11, 1871.

ART TEACHING.

SOME few years ago the Architectural World of London was overrun with lectures. In addition to the regular papers at the Institute and the Association, there were solitary lectures, and courses of lectures at the Museum and the Exhibition and elsewhere, and these for a short time were popular enough. That state of things came to a natural end; and now there seems suceeding to it a kind of plethora of classes, which may run some risk of following the same course, though it is to be hoped a better fate awaits them. In the opening address of the President of the Institute some, though by no means all of the means of art culture open to architecural students in London were enumerated; and a formidable list they made. From that amiable delusion, the studentship of the Institute upwards, there are now a remarkable and a varied set of organisations provided, each of which could be with advantage utilised by almost any learner, but all of which no one student could attempt to make use of.

Between the lectures at King's College and University College, the Art classes at the Museum in Westminster, and those of Professor Poynter, the mutual instruction provided by the Association, and the departmental training obtainable at South Kensington, there is an almost bewildering choice; and the question, Which is best? will be asked by not a few.

Mr. Frank Gatley Briggs, F.R.I.B.A., Blackburn and Liverpool, architect and surveyor, who died on September 28, left £18,281, of which £16,201 is net personalty. The whole of his estate he left to his wife absolutely, but should she have predeceased him, then he gave such of his pictures and drawings as may be selected to the Blackburn Art Gallery, and a considerable portion of the residue to charities.

The jury of the competition opened by the Municipality of Chauny, in collaboration with the Renaissance des Cites, for the supply of drinking-water and sewerage for Chauny, reassembled on October 26. The first prize for sewerage and the second prize for waterworks have been awarded to English engineers, Messrs. W. H. Radford & Son, of Nottingham; and the second prize for sewerage and first prize for waterworks have been awarded to a French engineer, Monsieur Jean Mallard, Engineer of the Public Works of Paris. A scientific and technical jury of about forty members, including officials of the French Government, was specially appointed in Paris to select the schemes. The town of Chauny was bad'y damaged in the war, but there are large commercial works and factories being rapidly rebuilt, the district being served by a fine canal and having other great advantages.

An exhibition of an exceptionally interesting and instructive character will be opened very shortly in the Galleries of the Royal Institute of British Architects. Early in the present year the American Institute of Architects sent over to the old Salon in Paris a beautiful collection of drawings and photographs illustrating the achievements of American architecture in the nineteenth and twentieth centuries. The exhibition aroused the greatest interest in Paris, and at the closing of the Salon the organisers accepted the invitation of the Royal Institute to send it on to London. No such complete and representative display of American work has ever been seen in this country. The exhibition will be open to the general public from about the middle of November to Christmas.

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Bridges.—IV.

By Charles G. Harper.



OGWEN FALLS BRIDGE.

(*Previous Articles Sept.* 9, 23, *Oct.* 14.)

For old bridges of small size indeed, but of bold and simple spans, one may seek with advantage in Wales. It is a land of rushing torrents, not wide but often deep down in clefts of the rocks. A typical, picturesque old bridge of this kind is that which spans the falls of the Ogwen, on the Holyhead Road, as you come past Llyn Ogwen to the head of Nant Ffrançon pass.

The age of engineers' metal bridges dawned in 1780, when the Severn, in the Madeley and Broseley district, was spanned at a place since called Ironbridge, by reason of the iron structure then installed. It was a promising beginning of a new era, for this was a bold and even beautiful, and an entirely successful work. When completed it was also considered to be a very wonderful enterprise. The central span, completely bridging the river, is 120 feet. The effect is of lightness and strength. This was the work of Abraham Darby the third, 1750-1791; grandson of that Abraham of the name, 1677-1717, who founded the famous Coalbrookdale iron industry.



IRONBRIDGE.

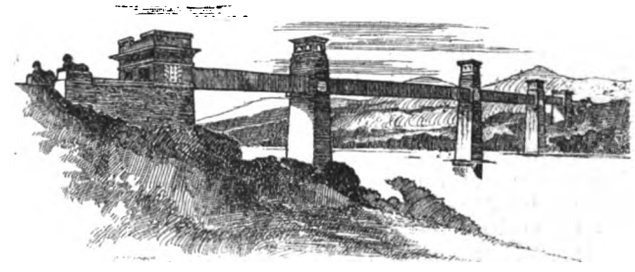
This new bridge-building epoch, begun with such promise, had its next prominent illustration in the "Waterloo" Bridge, designed and erected by Thomas Telford, the famous road-engineer. This carries the Holyhead Road across the river Conway at Bettws-y-Coed. It is a single cast-iron arch, beautiful in itself, and decorated in the spandrels with emblematic and symbolical representations of the Rose, Shamrock, Thistle and Leek: floral and vegetable badges of our composite realm. Cast-iron openwork lettering, easily to be read, explain why "Waterloo" Bridge was so named. The names of Telford, of the ironfounder, and of the foreman of works are all recorded in cast-iron. The position of the bridge, at an abrupt turn of the road, and now partly obscured by trees, renders it very awkward to illustrate.

Three years later, Telford produced his design for



TELFORD'S "WATERLOO" BRIDGE, BETTWS-Y-COED.

bridging the Menai Strait, carrying the same road into Anglesey. The problem was to cross an arm of the sea, at a height and with a central span generous enough not to impede navigation. Rennie had proposed a cast-iron single-span bridge, and Telford's first design was similar. But the design of the existing bridge was happily substituted—a suspension bridge which combines with that noble scene. It provides a roadway at the height of 100 feet above high water, with a clear opening between the main suspension towers of 579 feet. The spot chosen was where the channel narrows and the island of Ynys-y-Moch gives a footing for one of the towers. The entire length of the bridge is 1,000 feet.



THE BRITANNIA BRIDGE, MENAI STRAITS.

The first stone was laid August 10, 1819, and the work was opened January 30, 1826. The total cost of bridge and approaches was the very moderate one of £120,000. It is a toll-bridge, the property of H.M. Commissioners of Works. Foot passengers pay one penny, motor-cars two shillings. Regarded merely in the light of a commercial venture, the Menai Bridge is a burden rather than an asset. The Commissioners so long ago as 1907 offered it as a free gift to the County Council of Carnarvonshire, and it was refused, partly because the tolls do not cover maintenance and in part because it was feared that extensive works of repair were about due.

As a complete and horrific contrast to the Menai bridge comes Robert Stephenson's Britannia Tubular Bridge, crossing the same Strait, and well within sight of

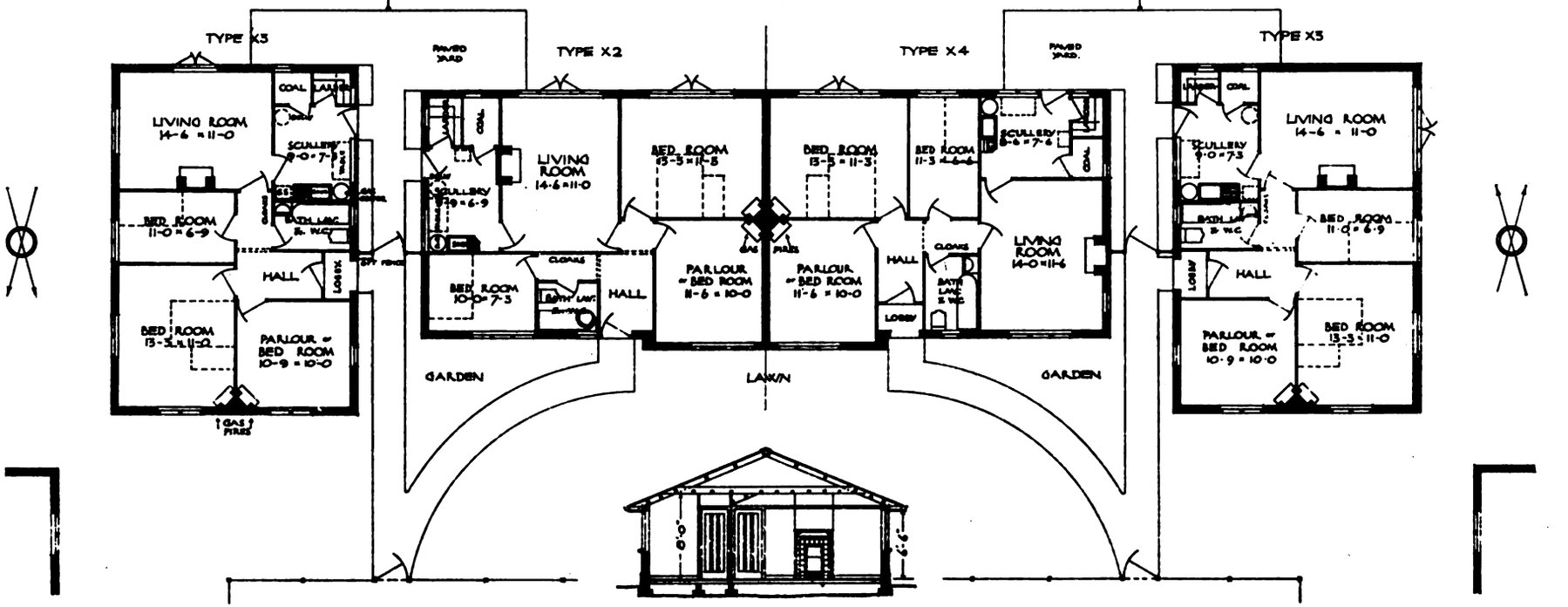
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• ELEVATION to END of TENNIS GREEN •



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SCALE of FEET

T. Cecil Howitt
D.S.O., A.R.I.B.A.
ARCHITECT,
HOUSING DEPT.
NOTTINGHAM
JUNE 1921

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THE ARCHITECT, NOVEMBER 11th, 1921.

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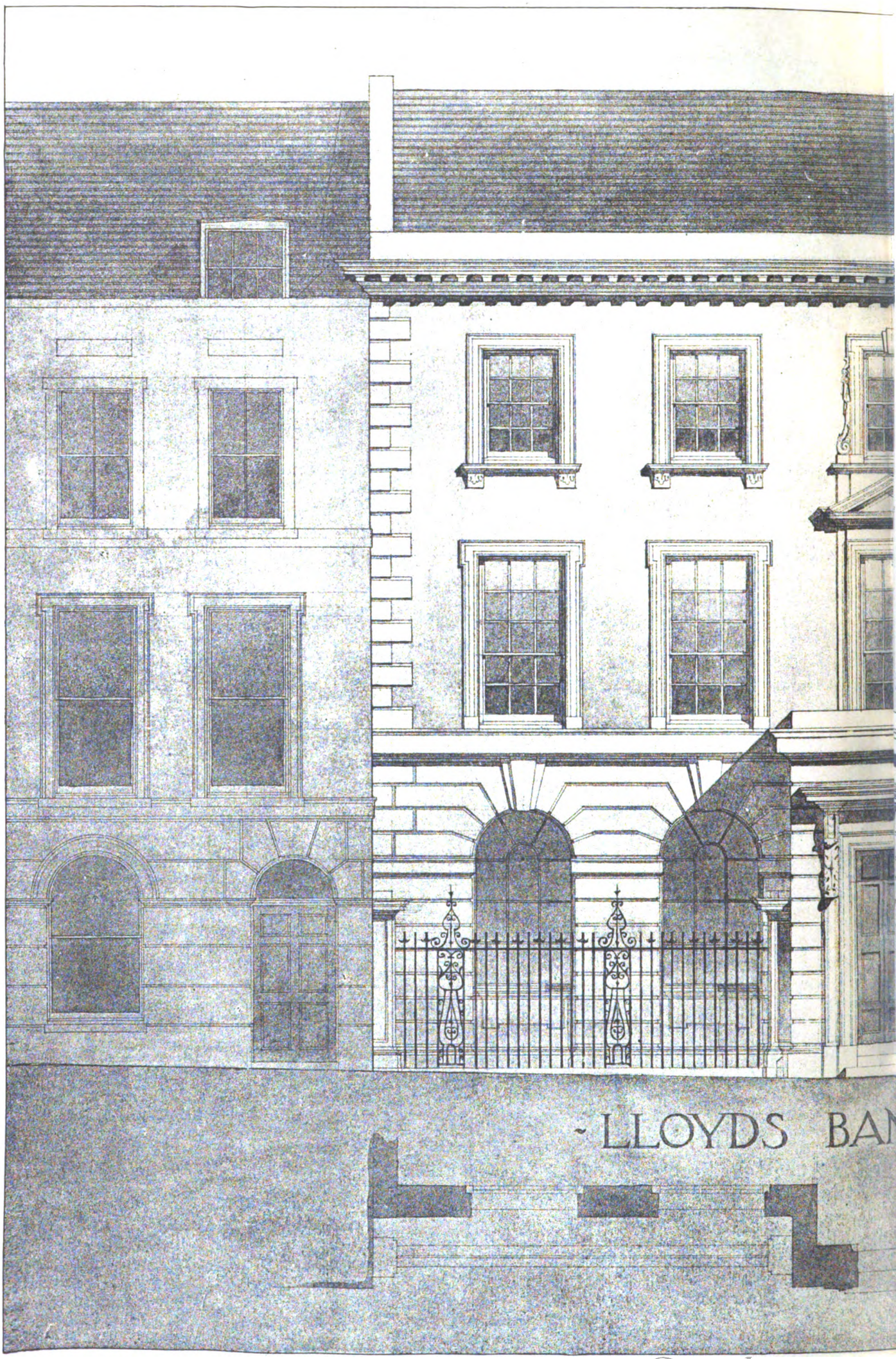


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LLOYDS BANK, RYE:
AS ORIGINALLY DESIGNED.

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LLOYDS BA
HORACE FIELD



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ANDOVER.
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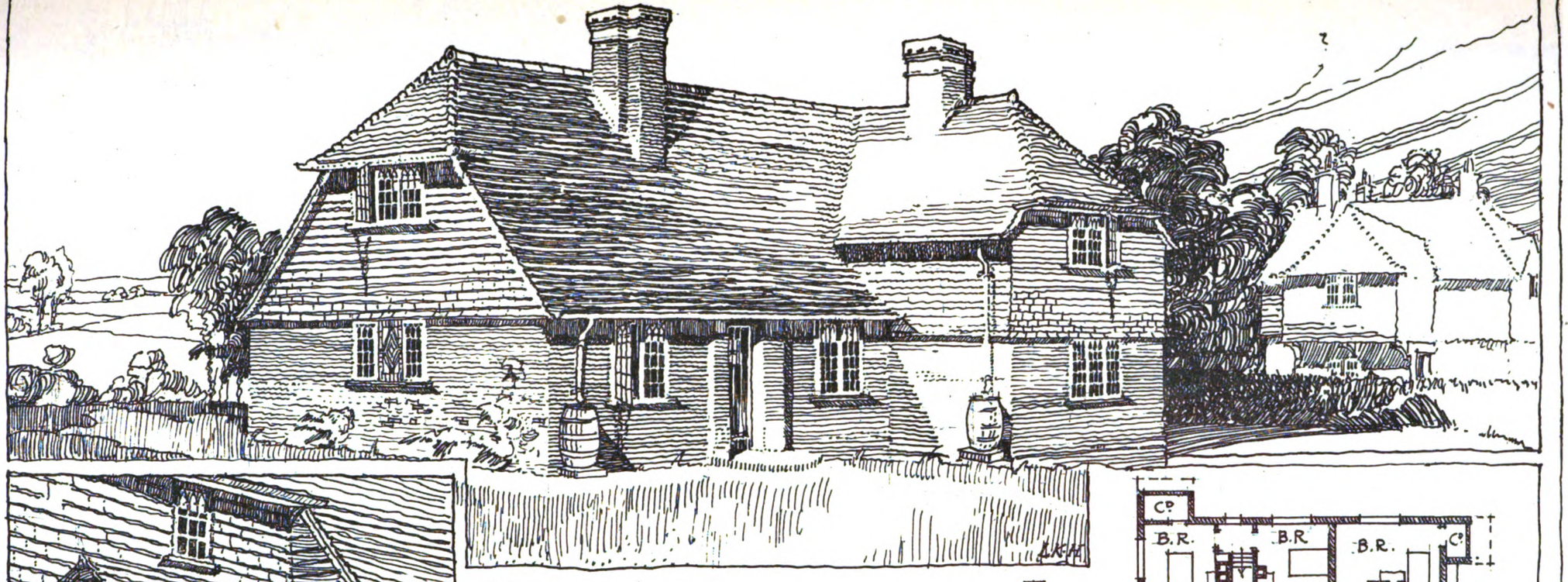
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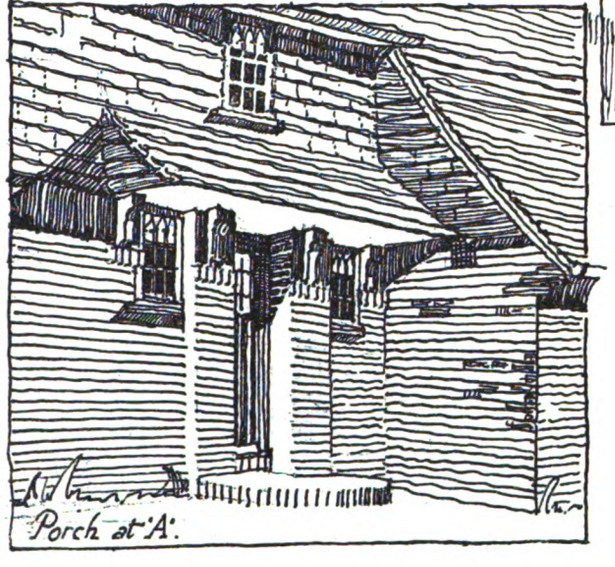
LLOYDS BANK, RYE: AS REFRONTED.

HORACE FIELD, F.R.I.B.A., ARCHITECT.

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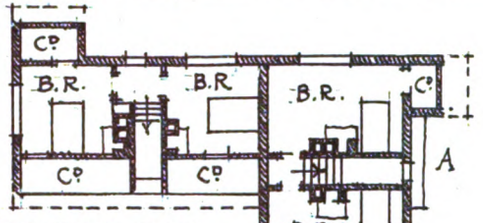
Porch at 'A'.

TWO COTTAGES AT WIVELSFIELD, SUSSEX.

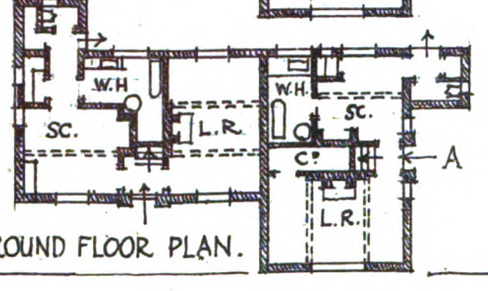
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FIRST FLOOR PLAN.



GROUND FLOOR PLAN.

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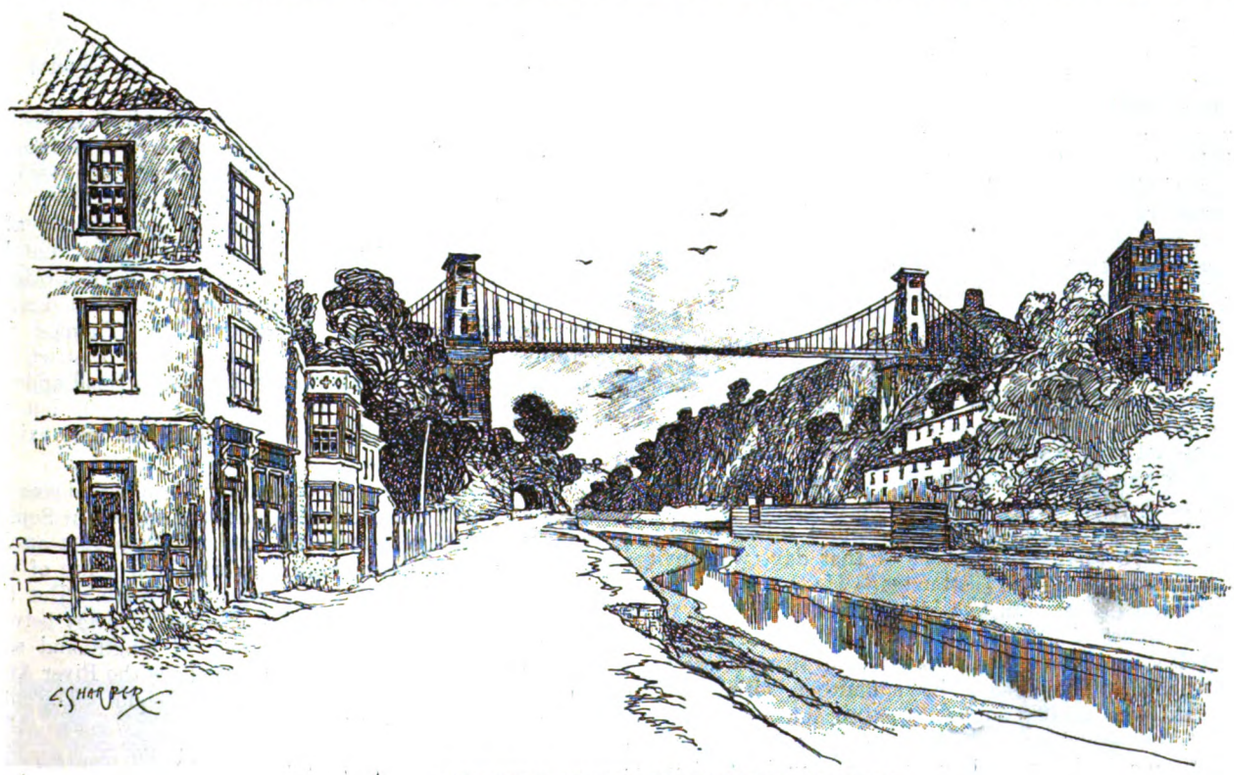
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TELFORD'S SUSPENSION BRIDGE, MENAI STRAITS.

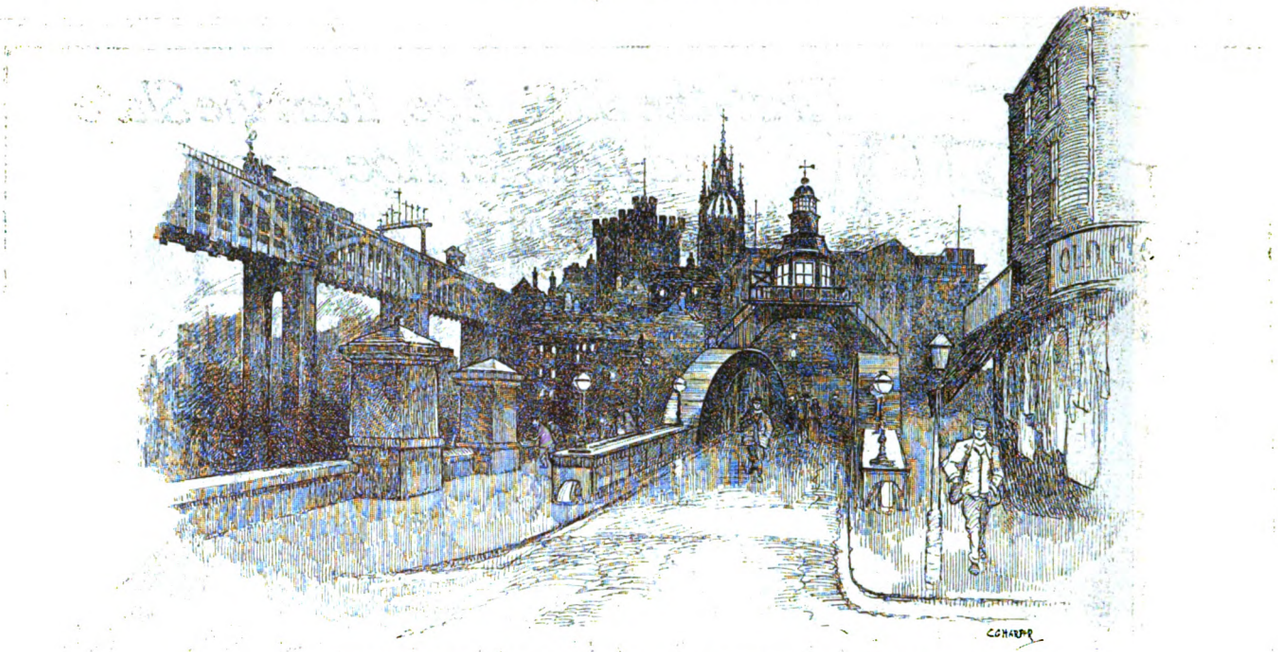
the other. The model for it is obviously Egyptian trabeated architecture. That would be obvious enough, even were it not for the pylons of the three intermediate towers; but the two sphinx-like lions at either end forcibly emphasise the idea. The site was chosen because of a rock in midst of the fairway, affording a base for the central pier; and the name "Britannia" comes from that of a vessel wrecked on it, some years earlier than the laying of the foundation-stone in April 1846. The width of the Strait is here about 1,100 feet. The bridge is on the beam principle. Each of the main "tubes" is 472 feet in length: the whole length, 1,841 feet; the cost £602,000. The tubes rest on rollers, allowing for contraction and expansion of the metal. Observation has ascertained the variation to be fully twelve inches. The first train ran through on March 5, 1850. The effect of this bridge is of a depressing solemnity.

In the same year was opened Stephenson's High Level Bridge at Newcastle-on-Tyne. It carries road and railway, one under the other, across the coaly Tyne at a height of eighty-five feet. It is frankly an engineer's utilitarian bridge, with no pretension to style or beauty. The principle is of the truss variety; or, as it was popularly styled, the "bow-and-string." It has long been recognised as a needlessly ugly building, and the darkling roadway, of necessity always artificially lighted, beneath the rail stage, to be a nuisance. But in the modern appreciation that art and romance reside even in the grime and grimness of industrial developments, the view formed from Gateshead of this stark construction combined with the impressive skyline of Newcastle is not without a certain stern beauty. There you have the smoke and steam of the trains above, the activities of the Swing Bridge below, and the majestic contrast of St. Nicholas's corona and clustered pinnacles in the centre. It is emphatically Newcastle, in its every circumstance: it is



BRUNEL'S SUSPENSION BRIDGE, CLIFTON.

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STEPHENSON'S HIGH LEVEL BRIDGE, NEWCASTLE-ON-TYNE.

life and doing; and it is only when Newcastle is still and idle, from whatever cause, and the clanging and the traffic of the Tyne are at rest, that the merely ugly side of it all is forced upon you.

There is nothing more spectacular in the way of bridges in this our England than Clifton Suspension Bridge, spanning the gorge of the Avon at a dizzy height, below Bristol. And the bridge has, moreover, a history of some romantic quality. At this point, where the Avon flows between Clifton and the Somerset shore, was once Rownham Ferry; an always uncomfortable, and sometimes even a perilous, crossing. Travellers descended the steeps of Clifton, were taken hazardously across stream, and then had toilsomely to climb up again heights similar to those they had descended: and so came, exhausted, up to the plateau of Abbot's Leigh. At this ferry there was also a ford, practicable at low water for horsemen: but as the tide has here the extraordinary rise and fall of forty-five feet, with a swift rise, the dangers of the crossing need scarcely any insistence. These perils are fully illustrated in old records of this locality.

The first person ever to reduce to some shape the very old aspirations of Bristol for a bridge across this romantic and beautiful, but exceedingly inconvenient, gorge of the Avon was Alderman Vick, of Bristol City. He died in 1753, leaving a bequest of £1,000 to be invested until the capital sum reached £10,000; which would, he considered, be sufficient for the building of a stone bridge. He was a hardy optimist. By 1830, the accumulated funds were £8,000; and it was then thought that, as engineering science had so advanced, a bridge might indeed be built. Not, however, a stone bridge, but one on the suspension principle: a method which had economically and successfully been tried in various places. But it was perceived that no such sum as £10,000 would suffice to construct here a bridge of any kind; and so a proposal was set afoot to promote an Act of Parliament, form a company, and with the funds thus obtained build a bridge whose cost should be recouped from tolls. The Act was duly obtained, the canital subscribed, and Telford, the foremost engineer of that day, was invited to prepare plans and estimates. He provided for a suspension bridge with two iron towers; the whole to be built at a cost of £52,000.

Telford's scheme was rejected, and Brunel was then approached. The design he submitted, although the estimate was £5,000 higher, was accepted, largely because the drawings showed the committee a more picturesque building. I suppose we ought to honour that decision, made in a time when sheer aesthetic considerations did not usually command much attention. Those men of Bristol, although commercial, agreed with Brunel that this romantic scene might easily be ruined by a mere utilitarian structure. It seems a pity he did not bear this in mind when he designed the railway bridge across the Wye at Chepstow: a scene of beauty injured by what must surely be among the most hideous of railway bridges in the world!

Brunel's masonry towers, from which the roadway of Clifton Bridge is suspended, are on the model of the gateways to the ruins of Tentyra, in Egypt. They would well harmonise, he explained, with the rugged cliffs and hanging woods of Clifton and Abbot's Leigh. They were intended to be richly sculptured, but that intention was never fulfilled, and they remain severely plain.

The foundations of this bridge were laid in 1831, amid scenes of rejoicing; but the works were more costly than had been anticipated. In 1833 the ornamental work was sacrificed, reducing the estimates by £4,000. In 1836 the contractors failed, and the bridge company itself carried on. Not until 1840 were the two great towers completed. By 1843 the bridge was but half finished, although £45,000 had been expended. The bridge was not yet suspended, but the works were, and in 1853 the half of the ironwork that had so far been delivered was sold, together with the flooring, to satisfy creditors. Not until 1860 were operations resumed, and shortly afterwards the curious opportunity arose of cheaply purchasing the ironwork of Hungerford Suspension Bridge in London. This, strange to say, had also been designed by Brunel, in 1845. It spanned the Thames from Hungerford Market (where Charing Cross District Railway Station now stands) to the Belvedere Road approach to Waterloo Station. It had cost £100,000, but was about to be removed to give place to the still existing South-Eastern Railway bridge.

The ironwork was purchased for £5,000, and was duly adapted for Clifton Bridge, which was opened in September 1864. Mere figures do not suffice to give an idea of the combined simplicity, majesty, and sense of vastness induced by Clifton Suspension Bridge. But they must needs be quoted. The suspended roadway between the two great towers is 703 feet in length and some 34 feet wide, and it hangs 245 feet above the River Avon. The towers themselves are 80 feet in height. The entire weight of the bridge is 1,500 tons.

(To be continued.)

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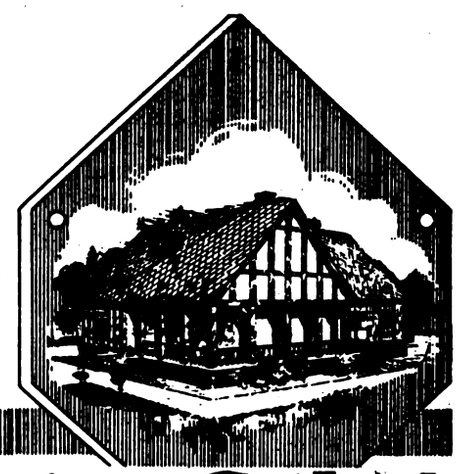
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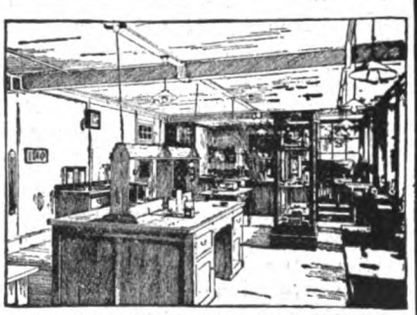
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Fees for Abandoned Housing Schemes.

A meeting of members of the Surveyors' Institution practising in quantities and members of the Quantity Surveyors' Association was held at the Institution on Friday, November 4, to consider proposals, which had been the subject of negotiation between the representatives of the two societies and the Ministry of Health, for the purpose of meeting the situation created by the abandonment of housing schemes and by the employment of separate surveyors on a number of sites forming one scheme.

In the unavoidable absence through illness of Mr. George Corderoy and Mr. F. H. A. Hardcastle, Mr. Walter Lawrance presided over a large attendance.

In opening the proceedings, the Chairman gave an interesting *résumé* of the negotiations which had taken place between the representatives of the profession and the Ministry of Health, in the first place in connection with the laying down of surveyors' fees under General Housing Memoranda No. 4 and No. 31, and later in endeavouring to come to an agreement with regard to differences of opinion which had arisen as to the proper interpretation of those memoranda, and as to the fees which should be paid where schemes were wholly or partially abandoned. He also explained in detail the reasons which had led the representatives of the two societies to decide that a settlement of the outstanding differences was desirable in the interests of the profession.

A draft of a new general housing memorandum prepared by the Ministry of Health was placed before the meeting. The principal provisions contained in this draft were:—

1. That for the purpose of calculating the fees payable to surveyors the whole scheme of a local authority should be taken as the unit (exception being made in cases of conversion into flats and the erection of block tenements); and that where quantities have been prepared by more than one surveyor for houses included in a single scheme, the total fees payable should be pooled and apportioned *pro rata* between them, subject to a proviso that where the amount so apportioned came in any case to less than the following minimum, the fee should be made up to that sum.

The minimum laid down was 2½ per cent. on the first £5,000, and 2 per cent. thereafter on the cost of the houses included in one block of each separate design for which separate quantities had been prepared, and ½ per cent. on the cost of the remainder.

2. That where houses for which quantities have been prepared and the houses were not erected or were reduced in number, the payment in respect of the abandoned houses should be one-half of the fees which would have been payable (subject to certain maximum prices for different types of houses) if the work had gone on.

3. That in the event of further houses being erected from the quantities previously prepared, the balance of fees should be payable on the basis of the difference between the fees on the tenders then accepted and the amount already paid.

A lengthy discussion followed, during which a number of questions were asked and answered. Reference was specially made to the adverse manner in which surveyors engaged on small schemes, comprising a high proportion of separate types, would be affected. It was stated that special cases of this kind should be laid before the Ministry for consideration.

It was also agreed that a recommendation should be addressed to the Ministry to the effect that where schemes were abandoned the quantities should be returned to the surveyor; and that in the event of schemes being proceeded with later, the surveyor originally instructed should be again employed.

The Chairman then moved a resolution that the draft memorandum should be approved. On a vote being taken, the resolution was carried by a large majority.

Dry Rot.

A Chadwick Public Lecture was delivered on the 3rd inst., at the Gallery of the Royal Institute of British Architects, when Professor Percy Groom, M.A., D.Sc., F.L.S., Professor of Technology of Woods and Fibres, Imperial College of Science and Technology, London, spoke on "Dry Rot of Wood and Sanitation." Mr. John Slater, F.R.I.B.A., Chadwick Trustee, was in the chair.

Professor Groom (of whose lecture we here give a summary) dealt solely with the decay or dry rot of felled timber. The investigation into these wood-attacking fungi was, he said, of importance from at least two standpoints, in addition to its purely scientific significance. In Great Britain dry rot is responsible for a great wastage of timber out-of-doors, in mines, in ships, and buildings that must amount to millions of pounds sterling annually.

It has been calculated that in the U.S.A., if wood were adequately protected against decay, the annual saving would be 7,000,000,000 board feet of timber. Unless steps are taken to prevent it the loss occasioned by dry rot in buildings will certainly increase in this country, thanks to the increasing amount of sapwood used, neglect of adequate seasoning and of proper protection against dampness.

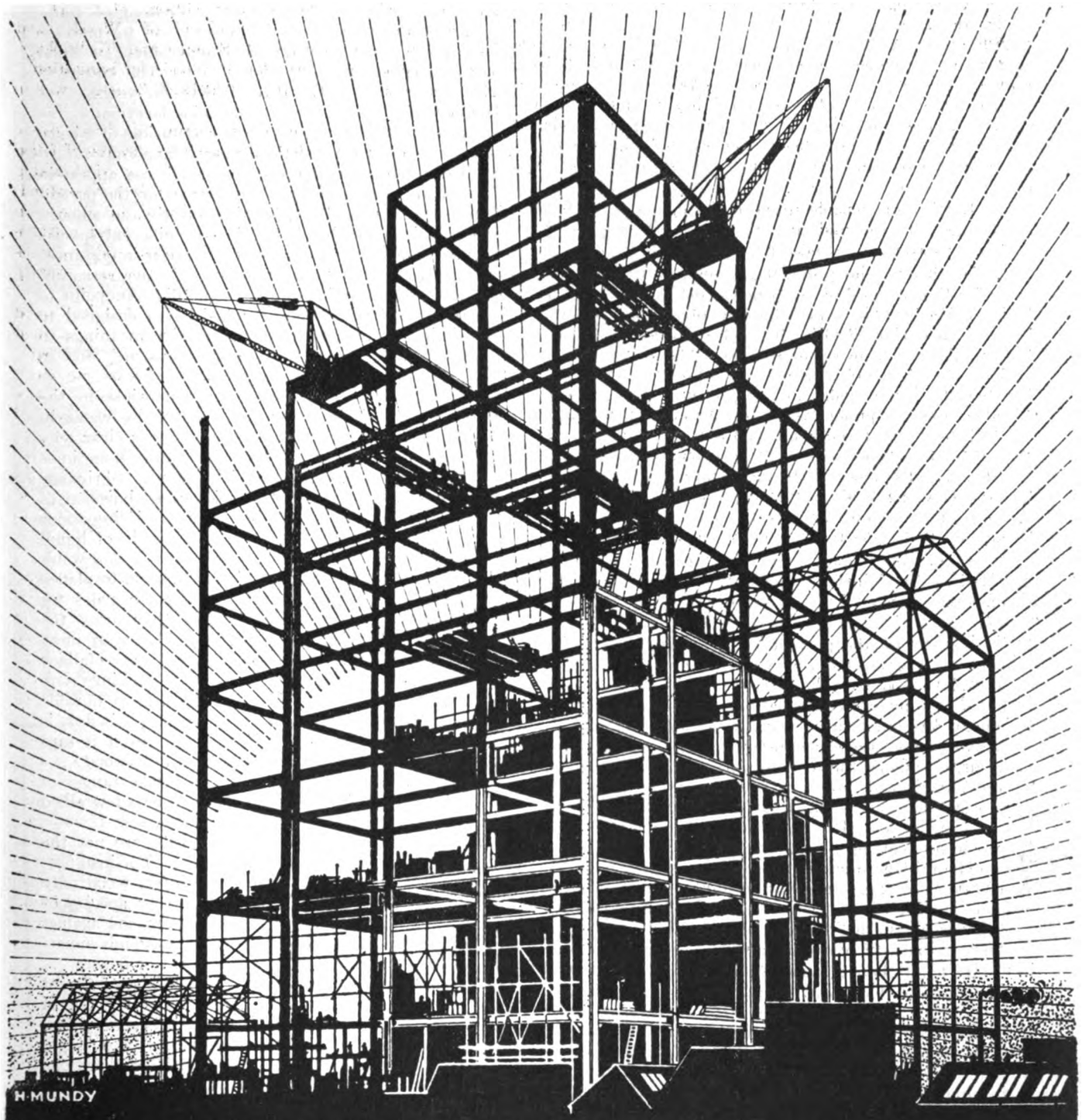
There are accounts of the rapid destruction on the continent of continuous rows of houses extending the whole length of streets. In this country it is difficult to obtain any statistical information as to the loss due to this cause in houses alone.

Besides the increased use of a more perishable type of constructional timber, the causes of decay are further aggravated nowadays by greater negligence as to measures designed to protect wood from decay. There appears to be an ever-widening custom of using incompletely seasoned timber in houses of affording it little protection during building, and little opportunity for drying before completion of the house. Often, too, builders who are not under the supervision of competent architects provide inadequate protection for the wood of the finished house against access to moisture, and in particular they neglect to provide for proper ventilation.

The serious prospects in regard to dry rot in buildings, and in the losses resulting therefrom, were recognised some years before the Great War by Germany, whose Government founded and endowed an Institute, whose sole functions are to investigate and publish information on the dry rot of timber. In this country the urgent need for such research was recognised by the Royal Institute of British Architects, which definitely urged the State to promote it. At the Imperial College some researches in this matter were begun so far as it concerned coal mines, but the War interrupted them. Since the War, with the assistance of the Department of Scientific Research, a commencement in the training of investigators has been made at the College.

The fungi causing dry rot are all composed of microscopically thin, hollow, jointed threads or tubes, known as "hyphæ," which grow in length only at their ends and emit branches. These hyphæ permeate and consume the wood, and certain species can produce outside the wood loose cottony masses, or by close interweaving can build up closer cushion-like or skin-like growths or long strings, by the aid of which they can spread over considerable areas. In addition, dry-rot fungi all possess elaborate fructifications or fruits, easily visible to the naked eye. In these are produced countless spores, which are violently ejected, and are so light and microscopic that they can float in the air for days or weeks, and are wafted about by the gentlest of air currents. One individual plant of "Merulius lacrymans," which is responsible for the worst form of dry rot, can in a few minutes eject a number of spores sufficient to wreck the woodwork in the buildings of all Great Britain within a few years. There is no limitation of output on the part of this botanical Bolshevik.

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Fungi are always to be found in houses, but only certain of these cause serious decay. Dry rot is caused solely by species of fungi that vigorously attack wood substance and eventually disintegrate it. From the point of view of their manner of growth, these fungi can be ranged into two extreme classes. In species belonging to one class, a spore reaching the wood sends into the interior hyphæ, which grow exclusively inside the wood, always keeping at some distance from the outside. In such cases the wood may show no external signs of its decayed condition, which is first revealed either by breakage or by the fructification that emerges to the outside. This type of attack, though more insidious than the next type, is slower, and lends itself more easily to remedial measures, which consist in the removal of the single piece of wood attacked and some accessory precautionary methods. Much more serious and rapid are the attacks made by the other class of fungi, which not only send their hyphæ into the wood, through which they spread, but also extend rapidly over its surface. The hyphæ on the surface may form large, snowy cushions, thin skins, or long strings, any of which can give off hyphæ that penetrate the wood. These growths can be pushed by the fungi over bricks, stone, iron, or linoleum, and thus can reach distant pieces of wood. Belonging to this type is the "Merulius lacrymans," whose string-like growths, sometimes as thick as a lead pencil, can travel yards, say inside tubes containing bell-wires, and can ascend from storey to storey along the walls, and even penetrate walls by making their way through the mortar.

The accurate identification of the various fungi causing dry rot in buildings is vitally important because the different species differ as regards their condition of growth and activity, and consequently require different methods of prevention and eradication if these are to be reliable and economical.

Fungi causing dry rot grow actively only within certain limits of temperature which seem to be characteristic of the species. "Merulius lacrymans," unlike "Polyporus vaporarius," cannot grow at a temperature of 27 degrees Centigrade. The sterilising effect of high temperatures is well known, and it may be stated that the hyphæ of "Merulius lacrymans" are killed by exposure to dry or moist heat at a temperature of 38 degrees Centigrade in three hours. So that infected wood artificially seasoned at this temperature would appear to be sterilised but for the production inside the wood of more resistant spores. Cold does not readily destroy Merulius, for this produces fructifications in ice-cellars.

Oxygen, and therefore in practice atmospheric air, is needed by all fungi that cause dry rot. If air be excluded from wood this cannot undergo dry rot. Beech timber which perishes in three years out-of-door will remain sound for many years under water. The oxygen of the air is needed for respiration: the fungus takes in oxygen and gives out carbon dioxide and water. "Merulius lacrymans," for instance, can produce water weighing more than half as much as the original wood. It is this water of respiration that is responsible for the drops to be seen hanging on to the hyphæ, and also for the specific name of "weeping." The fungus causing both "wet rot" and "dry rot" may be the same.

All fungi causing dry rot, at least in early life and usually throughout life, require supplies of water from the outside world: the wood must contain sufficient moisture if they are to grow. The adequate seasoning of timber for use in buildings is imperative, as is its subsequent protection from liquid water or damp air from which it can freely absorb water. The amount of water required by different species of fungi causing dry rot in houses differs widely. At the one extreme are certain kinds which demand thoroughly damp wood: such species, if alone, readily lend themselves to eradication and prevention by drying the wood and securing good ventilation. At the opposite extreme is "Merulius lacrymans" which, when once established, can manufacture water and thus attack the driest of wood. One cannot rely upon eradicating Merulius by ventilation or temporary drying. When a fungus is living in wood the effects of greater or less drying vary. In the case of Merulius with shortage of water the fungus tends to produce thin skins, or even strings, instead of fluffy cushions, outside the wood; it also tends to produce fruits. Mere drying at ordinary temperatures of wood does not kill Merulius that is inside it. The spores of Merulius when thoroughly dry will live for years.

The peculiar properties of "Merulius lacrymans" as regards its relations with water, are responsible to a large extent for the fact that this is the most dangerous fungal foe to the woodwork of houses, and that it can appear in houses when there has been no negligence on the part of builder or architect. To determine exactly the amount of moisture in wood that is required by different species of fungus would be of the greatest practical importance. On this we know almost nothing without further research. It is, therefore, quite impossible from this standpoint to provide any statistical basis for legislation designed to protect buildings by assigning quantitative meanings to the terms "seasoned," "thoroughly seasoned," and so forth.

Several phenomena become comprehensible in the light of our knowledge of the part played by water in wood in favouring decay. For instance, it is clear why unseasoned wood, when covered with paint, sometimes undergoes more rapid decay than bare wood. Shrinkage of wood causes cracking of the paint and admission of fungi to the moist wood within. Again, if infectious pores are to germinate, they require a supply of liquid water in which they can start growth: spores and water hang on to unplaned wood more firmly than on to planed wood. Again, the rougher surface of sawn pales for fencing holds water and spores better than does the smoother surface of cleft pales, so that the latter are more durable. Finally, it is now possible to explode the fallacy of the statement frequently made that in buildings sapwood of a tree, say Scots pine (red deal), is as durable as the heartwood. The sapwood, so long as it is dry, is in an immune condition; but if moisture reach it sapwood is very much more perishable than heartwood.

Some of these fungi can attack a wide range of timbers, others can feed on only one kind or a few allied kinds.

The conditions of infection and growth are not the same for one and the same kind of fungus. For instance, apparently the spores of Merulius will infect wood only after this has been attacked by some other species of fungus. This fact provides an additional reason against the introduction of slightly infected, even though apparently sterilised, wood into the construction of houses.

The fungi causing grave dry rot in houses are different from those attacking standing trees. The sources of infection of houses are probably largely timber yards, builders' yards, possibly shallow coal mines, and ships, and possibly the soil. But on this and other questions national interests demand research and subsequent legislation. The fungi responsible for dry rot cannot directly cause disease as parasites in human beings. Those that manufacture water can render a house damp, and thus tend to cause the occupants to suffer from diseases that are promoted by damp air.

Tenders for the erection of a sewage pumping station at Arksey were considered by the Bentley Urban District Council, and that of Messrs. H. C. Pullar & Co., Manchester, for £1,411 18s. 11d., was accepted. For the construction of a road bridge over a stream, the tender of the Yorkshire Hennebique Construction Co., of Leeds, for £1,935, was accepted.

The Royal Academy of Arts will shortly elect one Cousins annuitant. Applicants for the annuity, which is of the value of not more than £80, must be deserving artists, painters in oil and water colours, sculptors, architects, or engravers in need of aid through unavoidable failure of professional employment or other causes. Forms of application can be obtained by letter addressed to the Secretary, Royal Academy of Arts, Piccadilly, London, W. 1. They must be filled in and returned on or before December 3, 1921.

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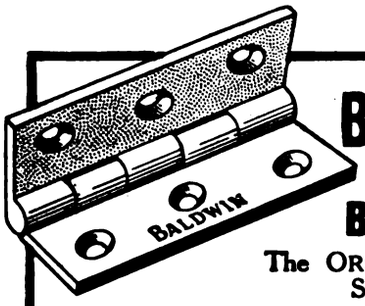
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Advertisement Hoardings in London Streets.

Apropos the recent decision of the London County Council to sanction the erection of a large advertisement hoarding on the approach to the Admiralty Arch, the Improvements Committee of the Council was this week vigorously attacked for entertaining a proposal to erect similar huge hoardings in High Street, Fulham, which, according to the Fulham Borough Council, would obstruct the view previously obtainable across the grounds of Fulham Palace.

Mr. Andrew Taylor, a past Chairman of the Committee and an architect by profession, objected to the obliteration of beauteous spots in the Metropolis by unsightly hoardings. If the policy of the Committee were persisted in, there was, he said, no reason why every park and open space in London should not be surrounded by advertisement hoardings. Piccadilly and the Mall in particular would afford the Committee an excellent opportunity of making money.

In facetious but well-intentioned mood, Mr. Taylor harangued the Council on the extent to which defacement of public buildings might be carried. If the Council published a comic journal, he would like to prepare a cartoon representing the Vice-Chairman of the Improvements Committee on a ladder, with posters and paste-pot, preparing to cover the façade of the new County Hall. The Chairman of the Committee would figure as his assistant, whilst the Chairman of the Establishment Committee—the official custodian of the new building—would from the foot of the ladder exhort the delinquent to "Come down at once, or I will fetch the Police." (Laughter.) If the activities of the Committee were not checked, they might before long turn longing eyes in the direction of the House of Commons and Westminster Abbey as bill-posting stations.

On behalf of the Committee it was urged that the hoardings were not permanent structures; that they frequently hid unsightly walls, especially in the case of buildings undergoing demolition, and that in the present conditions of municipal finance it was impossible to forgo the substantial rents which were offered. Sir Cyril Jackson, evidently a student of the growth of pictorial advertising, said he was by no means appalled at the appearance of present-day hoardings. They added a touch of colour to life which was in no way objectionable.

The Council rejected a motion by Mr. Taylor that steps be taken to terminate tenancy of the hoarding.

Lamps on Road Obstructions.

After considering suggestions made by the Public Works Contractors' Association and the London "Safety First" Council, the Local Government Committee recommended adoption of by-laws governing the placing of lamps on road obstructions at night. The by-laws provided that where work was being carried out in a roadway the obstruction should be marked by red lamps from one hour after sunset to one hour before sunrise, the lamps to be so placed as to indicate sufficiently to foot passengers and drivers of vehicles the extent and position of the work. Breach of this regulation, either by the contractor or his workmen, would be punishable on conviction by a penalty not exceeding £5. The use of white lights in addition to the red lights, in order to enable work to be carried on during the night, was not excluded. The Council adopted the by-laws as framed by the Committee.

Mr. Nathaniel Lloyd, O.B.E., delivered one of his lectures on "right building" before the Leeds and West Yorkshire Architectural Society on October 28. In this he outlined some factors essential to good design, and illustrated these by forty or fifty lantern slides, showing both right and wrong methods. He also showed a number of improved details applied to every-day work. The lecture was listened to with the closest attention, and Mr. Lloyd was afterwards thanked for his helpful and practical suggestions.

General.

Stepney Borough Council wish to acquire the disused Mile End Fire Station for housing purposes, and have offered £7,000 for the London County Council's freehold interest in the property.

Mr. Robert George Kewish, of Downham Road, Tranmere, Birkenhead, builder, who died on September 25, aged fifty-nine, has left £15,290 gross, with net personalty £1,267. Mr. Frederick William Hugh Hunt, F.S.I., F.R.I.B.A., of King Street, Portman Square, W., architect and surveyor, left £12,990 gross.

We offer congratulations to our contemporary "The Electrician," which this week celebrates its diamond jubilee, having first appeared on November 9, 1861. Its pages are a chronicle of the transformation of electricity from a little-understood science into a great industry and aid to civilisation.

Large extensions are projected for the Wombwell sewerage schemes at Wombwell, near Barnsley. The engineers are Messrs. David Balfour & Son, 3 St. Nicholas Buildings, Newcastle-upon-Tyne, the successful contractors being Messrs. Swift Bros. & Haslam, of South Elmsall, near Doncaster. The total cost of the scheme is £40,000.

Reports indicate that there has been a very large increase in building activity in Canada since August, and the following figures are illuminating. Contracts throughout Canada to the value of $36,307,200 were awarded in August, as compared with $17,741,400 in July, an increase of over 100 per cent., to which Western Canada contributed very substantially.

A meeting was recently held in Edinburgh by the authorities concerned in the proposed works at the East Fortune Sanatorium. It was stated that for the heating alone £20,000 would be required, while the architect thought that at least another £100,000 would have to be spent at East Fortune before it could be made suitable. There was a suggestion that the work might be done gradually, and another meeting is to be held at East Fortune.

A review of the past year's building in Paisley given by Dean of Guild Balderston showed that during the period ended October 31 the Court had granted thirty-nine linings as compared with sixty in the preceding year. The value of the linings, however, was estimated at £396,680, as compared with £335,650, an increase of £61,030. The linings granted included 280 dwelling-houses, of which 244 were in connection with the Corporation Whitehaugh housing scheme.

The Islington Borough Council have approved an amended scheme for municipal offices in Tyndale Place. The Council, it may be remembered, some time ago approved a scheme involving an expenditure of £330,000, which was negatived by the London County Council, and the new scheme, "the irreducible minimum to meet the Council's requirements," is estimated to cost £73,909. The Finance Committee report that if the County Council sanction a loan for this scheme the work could be started within the next month or two, and that it would provide employment for about twelve months. The architect's estimate for carrying out the scheme is: Cost of building, £67,650; cost of furniture, £1,500; cost of architect's fees, £3,500; cost of quantity surveyor's fees, £750; cost of clerk to works, £500; total, £73,909.

Housing News.

The Maidenhead Town Council are applying to the Ministry of Health as to whether they will entertain a proposal for fifty houses in addition to the approved scheme of eighty-six now in hand.

The Blackwell Council last week instructed their clerk to apply to the Ministry of Health for another £130,000 to enable them to carry out the housing scheme. The Council have had £70,000, and the larger sum named is wanted to carry out work to which they are now committed.

At the meeting on Monday of the Lincoln City Council the Housing and Town Planning Committee reported that 210 houses had been completed and let at St. Giles, and that the Ministry of Health had agreed to the building of a further fifty houses there. It was resolved to invite tenders from Lincoln builders for their erection.

The Mansfield Woodhouse Urban Council at a meeting held last week were informed that the Housing Commissioner had replied to their application for sanction to extend their housing scheme so as to provide 160 houses, stating that the matter must be deferred. The Council decided to send a deputation to the Commissioner on the subject. It was pointed out that at least 600 new houses were required.

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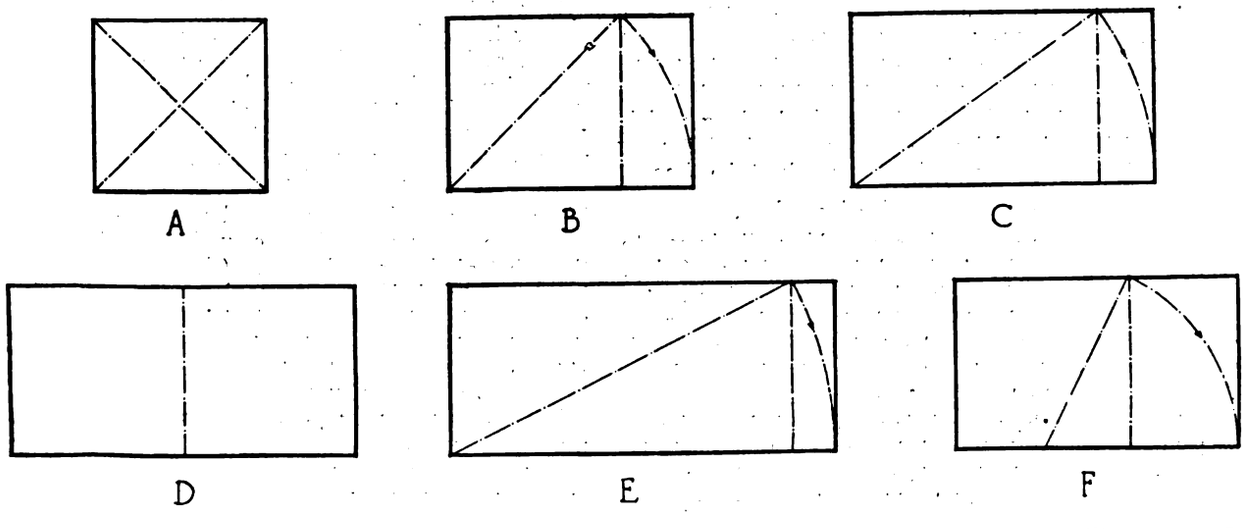
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Geometric Proportions in Architectural Design.

THROUGHOUT the period which has elapsed since the birth of the Renaissance, architectural investigators have constantly sought for formulæ on which they could base design. At first such theories were mainly concerned with the design of detail, columns, entablatures, and their parts, which have figured so prominently in the curriculum of architectural text-books and architectural schools, and which in the main have been built up on the basis of the writings of Vitruvius and his later followers of the Renaissance. Mr. Hambidge has recently made notable investigations which appear likely to be of greater practical utility than anything which has been determined by Penrose, Cockerell, or other of the earlier investigators into the nature of the proportions which formed the basis of Greek designs. For the Hambidge theories, which careful examination supports, go to show that the proportions of every part of a Greek building were based on rectangular spaces of certain proportions, the rectangle adopted as a unit being expressed in different applications in every part of that building in plan, elevation, and section, while similar proportions governed design in other branches. These rectangles are those shown in the accompanying diagram, consisting of A, a square; B, a rectangle, produced by revolving the diagonal of a square to form the longer side of the rectangle C; the still longer figure produced by lengthening the rectangle by the amount of the diagonal of rectangle B; D, the double square; E, the elongated figure produced by the revolution of the diagonal of the double square; and F, a proportion intermediate between B and C produced by the revolution of the diagonal of half a square added to a single square. The importance of such a discovery, which seems to be well founded, lies in this: that while the refinements discovered by the earlier investigators of Greek buildings are chiefly of archæological importance and chiefly apply to the design of detail closely based on Greek work, the principles discovered by Professor Hambidge may be of use to designers generally. Crudely and generally expressed, we might say that the main proportions of a building being fixed and determined, we may find that the repetition of similar proportions in smaller features and sub-divisions of such a building may produce an apparent harmony in its design; or, if this be not so, and if the rectangles discovered by Mr. Hambidge are alone magical proportions, any deviation from which is unsatisfactory, we may find that we can so compose and design a fascade or building of any dimensions so that its main lines may be nearly or altogether divisible by the rectangles found by Mr. Hambidge. Or, failing either of these methods, we may, on analysis, find some more elastic method of thinking in two dimensions rather than in one which may form a useful check to the designer. The very interesting and elaborate treatise written by Fredrik Macody Lund, under the title "Ad Quadratum,"* and printed by order of the Norwegian Parliament, of which we hope to give a detailed analysis at a later date, is more universal in its scope, and aims at proving that practically all the great monuments of the past were designed in accordance with a system of proportion founded on two squares placed together and their diagonal, a view which has some support from recorded decisions of building councils in the Middle Ages. Like Mr. Hambidge's theory, this thesis is supported by examples based on plans, elevations, and sections of historic monuments, though it would seem to be less elastic than the other theory, as the basic form on which it is founded is one alone of Mr. Hambidge's rectangles, while it would govern the height and other proportions of a building too rigidly to be of great use to a modern designer. It may, in other words, prove to be more of a practical method of arriving at the proportions of a certain limited class of building than a system like Mr. Hambidge's, which is said to cover the design of whole branches of art. And it may be that what

* "Ad Quadratum." A Study of the Geometrical Basis of Classic and Mediæval Religious Architecture by Fredrik Macody Lund. Two volumes. Printed by order of the Norwegian Government. B. T. Batsford, Ltd. £5 net.



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"Ad Quadratum" proves is that the mediæval designer found a system of squares and lines derived from squares of the same convenience in determining the main lines of a design as many modern architects find in the use of squared paper. We can imagine, for instance, the use of squares as a means for conveying general proportions from builder to builder in past times, without believing that these same builders employed such as being the essential means of arriving at beautiful units of proportion. We have known students preparing themselves for the R.I.B.A. examination on the history of architecture storing their memory of buildings by the simple process of sketching them over squares; and in a similar manner we can imagine a master builder memorising what he had seen by remembering the squares a building occupies, from which it would be only a step to reproduce what he admired by a similar process. For in these days, when we set store on the word "originality" we often forget that the so-called originality of the past was accidental, and that many buildings in the past were the product of men who in one city wished to reproduce or improve on what they had seen in another.

That any system of proportion will enable us to design well is impossible, that some system may serve as a useful check or guide is perfectly likely, and in any case the methods employed in the past must be of the greatest value to us which may, and are, transcending their importance as archæological exercises.

In addition, just as algebra enables us to solve questions easily which can be worked out arithmetically with difficulty, systems of proportion should enable us more easily to solve important elements in design. If we had not methods of arriving at the entasis of a column—means which have been proved to be sound—we can imagine the time we might spend unprofitably in arriving at uncertain results, and in like measure well-considered systems of proportion may enable us to elucidate without difficulty solutions we might otherwise have doubt about. But the application of the method termed "Ad Quadratum" can be proved to have been compatible with the erection of the worst, as well as the best, buildings of past centuries, and will in our time prove no substitute for the innate genius without which the design of great buildings is impossible.

Illustrations.

FRITWELL MANOR, SOMERTON, OXFORD, A.D. 1688. Restored by THOMAS GARNER.

P. & O. SHIPPING OFFICE, COCKSPUR STREET, LONDON. Views by ALFRED CONRADE. ARTHUR T. BOLTON, F.S.A., F.R.I.B.A., Architect.

Notes and Comments.

W. R. Colton, R.A.

We regret to hear of the untimely death of W. R. Colton, at the comparatively early age of fifty-four, for he occupied a prominent position, both as a sculptor and teacher, while he was always one of the foremost in any educational project for the improvement of art. He received his early training at the Lambeth School of Art and at South Kensington, and at the early age of twenty-two had exhibited both in the Salon and the Academy, at the former gaining a silver medal and honourable mention. He also studied in Paris, and on his return was commissioned by H.M. Office of Works to carry out a drinking-fountain in Hyde Park, which stands at the east end of the Serpentine. The list of his executed works is a long one, including the memorial to the officers and men of the Royal Artillery in the South African War, in St. James's Park; a number of subject groups; important commissions for the Maharaja of Mysore, executed in the early years of this century; and a large number of the portrait busts which form the sculptor's main work in a country which shows an unfortunately feeble interest in this great branch of art. He became an Associate of the Academy in 1903, and a full Academician in 1919, and all with knowledge of his excellent works hoped that he would for long enrich the art which he loved by the production of what may be regarded as being among the best work of the time.

A Miracle and an Explanation.

A large number of people are making pilgrimage to the Quinta Congregational Chapel, Weston Rhyn, Salop, to inspect a strange thing that has happened there. On the wall of the chapel, with which the late Mrs. Barnes, widow of Colonel Barnes, the Quinta, was associated, there has appeared an almost exact profile image of that lady. It can only be seen from a certain angle, but, viewed from that the portrait is most realistic, and a remarkable spectacle. It is said that, to add to the coincidence, the profile of the lady is on the spot where it was intended to erect a memorial tablet to her memory.

An expert explanation is that when the church was erected the architect fixed a pipe in the wall to carry off the water from the church spouting to prevent an unsightliness in the outside architecture, and that the pipe has probably become choked.

We are sorry to read of so prosaic an explanation, which, we hope, in the interests of romance, will be contradicted on good authority. It seems only fair that dissenters should have something to put against the latter-day miracles of the Catholic Church, and the idea of a Congregational pilgrimage is distinctly attractive. We are reminded of the incident in one of Hood's poems, where a digger is asked whose grave he is preparing in London town, and "the deep-toned voice of the digger replied, "'We be laying a gas pipe down.'"

Old London Bridge.

The wide interest felt in anything connected with Old London Bridge was strikingly exemplified by the very large audience who listened to Mr. Caröe's lecture on Friday at the Society of Arts. The London Society is usually happy in its selection, both of subjects and lecturers, and few men in the ranks of the architectural profession can show greater and more accurate knowledge than Mr. Caröe of the matters with which he deals. Old London Bridge may be better described as being a leaking breakwater than a bridge, for by its erection the waterway was reduced to a small fraction of its size and the inner waters of the river heaped up so that a pool was formed to the west the level of which was 5 feet higher than that of the normal river. Old London Bridge was hardly beautiful, but must have been extraordinarily picturesque while it was a wonderful example of construction when its date is taken into consideration. It is quite possible that the inconvenience attending the presence of whole buildings on these old bridges produced a reaction in favour of entirely unencumbered bridges, and has prevented the due consideration of that useful *via media* the bridge with covered footways on either side, which always appeals to us as a most

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reasonable and picturesque form of bridge building, and one which might well be adopted in the construction of any new bridge over the river. Those who have had to cross by any of the Thames' bridges on a wet and stormy night will, we think, bear this out. In addition, covered and protected footways might be made an exceedingly picturesque feature.

The British Empire Exhibition Scholarships.

The Executive Council of the British Empire Exhibition announce five or more Commercial Research Fellowships for competition among Chambers of Commerce in the United Kingdom. The value of each Fellowship will be not less than £500, and will include a first-class return ticket to the Dominion, Crown Colony, &c., to which the Fellow will proceed. The subjects of research will be as follows:—(1) The best means of promoting inter-imperial trade in a selected staple industry. (2) The methods whereby the British Empire Exhibition can further the interests of this trade. (3) The potential resources in raw materials, &c., in the Dominion or Crown Colony visited, and the best means for exploiting these in the mutual interest of the Dominion and this country. (4) The means whereby these undeveloped resources may be adequately represented at the British Empire Exhibition and brought to the attention of interested financial or industrial groups. The right of nomination for the Fellowship will be placed in the hands of the Committee of the Chamber of Commerce, whose members have collectively provided the highest *per capita* aggregate in guarantees for the British Empire Exhibition, subject to the proviso that in any city where the aggregate of guarantees has already exceeded £50,000 one such Fellowship shall be assigned to the Committee of the Chamber of Commerce.

The scheme outlined seems a good one, and should, if properly organised, be of use to the nation. We are sometimes afraid, however, that, while there seems to be plenty of leaders, there are few followers, and what is mainly wanted is more determination on the part of the whole population of the country to work well and exploit their opportunities to the utmost. Without this factor many excellent schemes are bound to remain in skeleton form, and for that reason to be in a great measure inoperative.

The Furniture and Furnishing Guild.

We are pleased to hear that the new Furniture and Furnishing Guild is doing excellent work in Manchester, and that the demand for its labour has exceeded expectations. It is at present very busy with repair work, and so great is the volume of this that it has been found necessary to carry out a great deal of it in the houses where it is required. The Guild aims at good workmanship, and specialises in polishing and finish, while its prices are said to be from 10 per cent. to 50 per cent. less than those prevailing. Customers are shown the materials which it is proposed to use, but whatever the material employed, the same wages are paid. The promoters of the Guild are in communication with other centres, and propose to establish branches in London, Bristol, Cardiff, Birmingham, and Burnley. We hope at a later date to be able to illustrate some of the new furniture designed and made by the Guild, as the movement is one which has our entire sympathy, as it seems to aim at the production of good, sound work at a reasonable price to supersede the shoddy and expensive work which we frequently see, while, unlike the Building Guild, it appears to be entirely non-political and does not indulge in useless and mischievous propaganda outside its legitimate functions.

German Builders in France.

A Conference has been held at the Ministry of the Liberated Regions for the purpose of discussing the offer made by certain German organisations for the reconstruction of eleven villages between Chaulnes and Peronne. M. Morain, Prefect of the Somme, assured M. Loucheur of the assent of the Mayors of the communes in question, the latter declaring that, as far as they personally were concerned, if the restoration of their villages could really be effected in twelve or eighteen months instead of the four or five years hitherto envisaged, they were disposed to accept the proposal of the Confederation General du Travail that German workers' organisations should undertake the task. They reserved the right, however, to consult the inhabitants of the villages.

It is proved that important towns and villages recover more quickly from the results of the war than the intermediate class of small towns like Bailleul, and we may feel sure that the practical French population will not place any obstacles in the way of the most effective method which can be devised to help them, because it necessitates the employment of German labour. After all it is reasonable that the Germans should restore in kind what they destroyed in kind, and we do not suppose that such reparation need or will involve the use of German designs. It would be a calamity if whole regions in France were to be assimilated to Germany by the erection of German designs, but there should be no necessity or danger of such a mistake being made.

"Ad Quadratum."

We refer this week to the important and interesting book published under the above title. In this and Mr. Jay Hambidge's "Theory of Dynamic Symmetry" the whole question raised is whether the old builders achieved a measure of their success by the employment of means which are easily at our disposal. "Dynamic Symmetry" is already applied by many American architects to design, and we may assume this would not be the case were they not convinced that it may be of great practical utility. We should be glad to receive communications from our readers on these and other allied subjects, such as Professor Goodyear's theories of intentional irregularities, as we hold that, whether the net result of such investigations proved these theories to be of little practical use or otherwise, they are of the greatest possible interest to the architect, while within them may lie the solution of many vexed controversies.

Forthcoming Events.

Monday, November 21.—Royal Institute of British Architects. Meeting at 9 Conduit Street, W. Paper by Mr. G. H. Widdows, F.R.I.B.A., entitled "School Design." 8 p.m.

Tuesday, November 22.—Liverpool Architectural Society. Meeting at 13 Harrington Street, Liverpool. Paper by Mr. W. T. Plume, Hon.A.R.I.B.A., entitled "Architects and Architectural Journalism." 6 p.m.

Wednesday, November 23.—Royal Academy Lectures on Chemistry by Professor A. P. Laurie, D.Sc.: "The Nature and Properties of Building Materials; Bricks and New Methods of Making Them." 4 p.m.

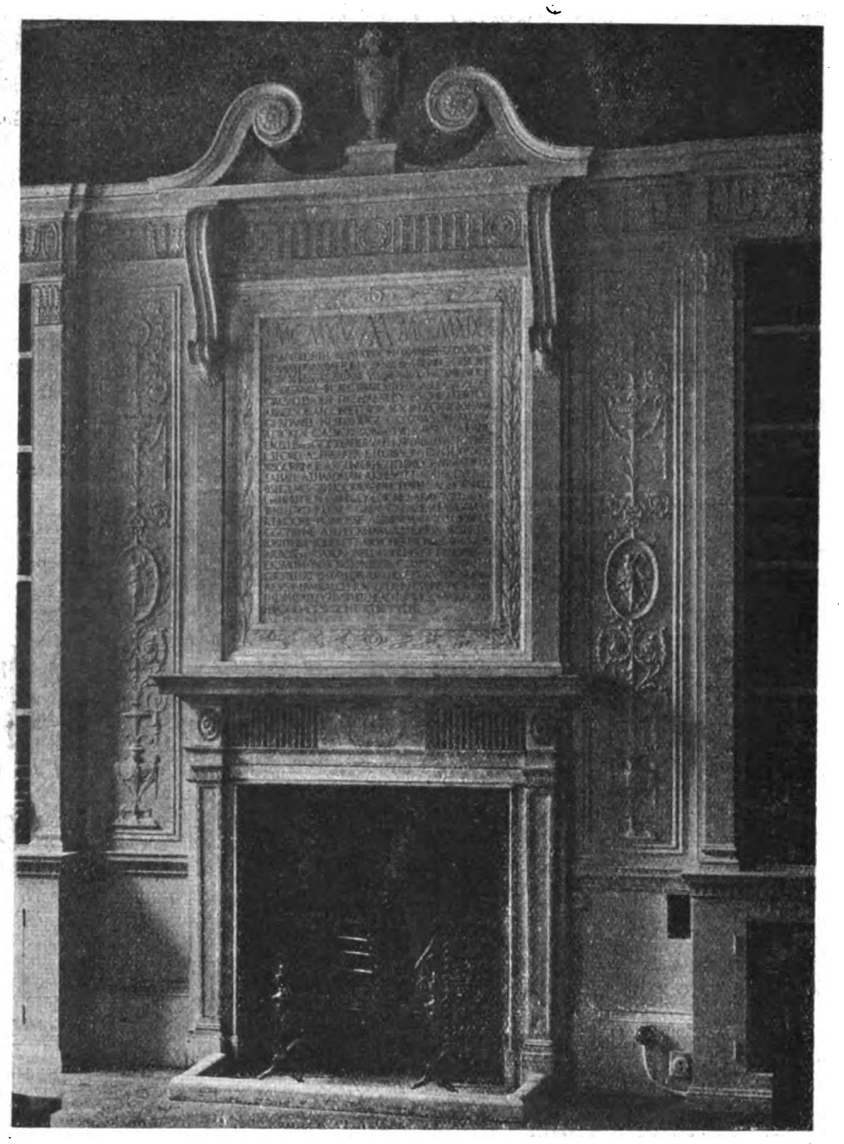
The Sunderland Town Council have adopted a scheme of their Education Committee for the conversion of Langholme Towers into a training college, and Ashburne, the residence of the late Mr. T. W. Backhouse, into a hostel for the students. The purchase and alteration of Langholme Towers would cost £19,500, towards which the Board of Education had agreed to pay £14,625, while the cost of alterations to Ashburne would be about £18,000.

The Ealing War Memorial, dedicated on the 13th inst., consists of two quadrant stone walls inscribed with the names of the glorious dead, which separate Ealing Green from the Public Library. This latter building was for some eleven years the country seat of Sir John Soane, R.A. The centre only of the villa is by Sir John; the south wing was built by his master, George Dance, junior, and it has two fine Adam ceilings and a few lovely mahogany doors of the same period. The War Memorial was designed by Mr. L. Shuffrey.

The Perth and Perthshire Joint Sanatorium Board met at the Mansion House of Murie, Errpl, which has been acquired as a sanatorium for the county, and inspected the sketch plans prepared by Mr. G. P. K. Young, architect, Perth. These provide for (1) the alteration and extension of the Mansion House to be used as an administrative block; (2) two pavilions of twenty beds each for ambulant cases; (3) one pavilion of twenty beds for bed cases, and (4) one pavilion for children, also for power-house and workshops.

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The Architectural Association.



THE A.A. MEMORIAL LIBRARY: THE MURAL TABLET. ROBERT ATKINSON, F.R.I.B.A., Architect

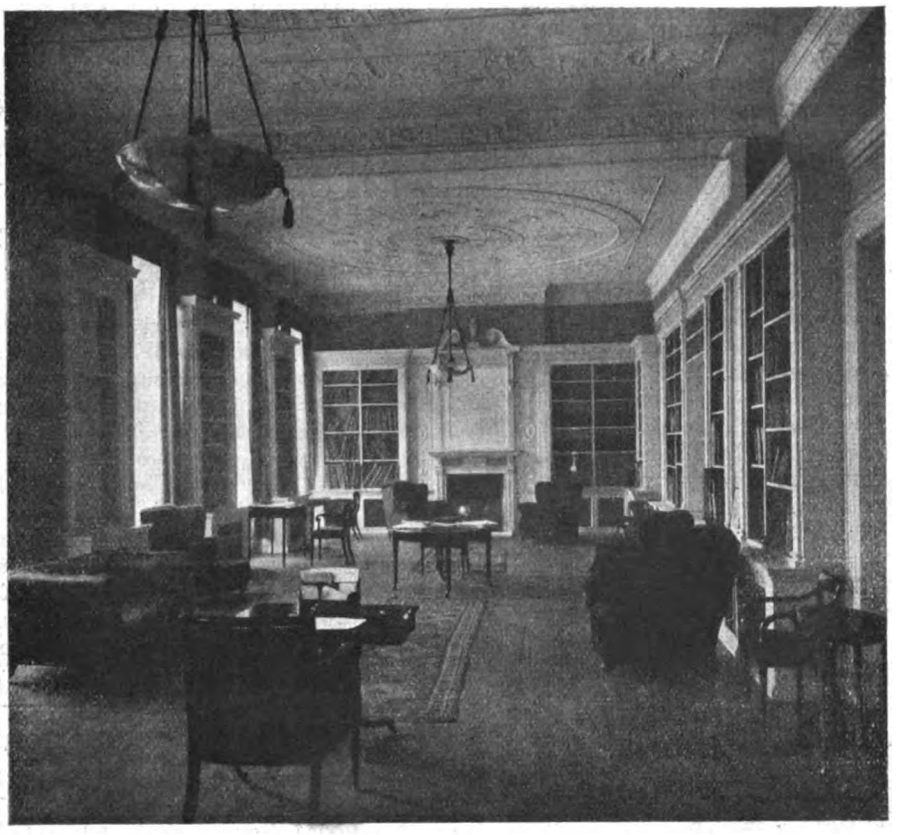
There was a crowded gathering of members and friends of the Architectural Association, at 34 and 35 Bedford Square, W.C., on Tuesday afternoon last, when the Rt. Hon. H. H. Asquith, M.P., opened the Memorial Library dedicated to Members who fell in the Great War.

The chair was taken by the President, Mr. W. G. Newton, M.C., M.A., A.R.I.B.A., and he was accompanied on the platform by Rt. Hon. H. H. Asquith, Sir Aston Webb, C.B., P.R.A., F.R.I.B.A., Mr. Paul Waterhouse, P.R.I.B.A., Mr. Stanley Hamp, A.R.I.B.A. (Hon. Treasurer), Mr. J. Alan Slater, M.A., A.R.I.B.A. (Hon. Secretary), and Mr. F. R. Yerbury (Secretary).

Mr. W. G. Newton, before calling on Mr. Asquith to speak, explained that they were there that afternoon to honour their dead, whose names were on the wall behind him, and in memory of whose sacrifice the Library had been made beautiful. He would like to say one or two words about that sacrifice of theirs, for they were all men by temperament and training peculiarly sensitive to all that was pleasant and orderly. And they very soon realised that the picture of war, which the daily Press painted as a kind of rollicking sport, where the enemy was always being outwitted by the British soldier with a smile on his face, was untrue. They very soon realised, and perhaps more acutely than others, that war is an ugly carnival of waste. Yet with this clear vision they did not shrink, but with a half-whimsical resignation endured the long days. Those whom they were honouring that afternoon endured them to the end of their lives. And surely the highest heroism was to feel most deeply, and yet keep an unconquerable soul. The Architectural Association was proud to have among them that afternoon Mr. Asquith to pronounce the formal opening of the Library. They had no politics there, but they welcomed him, first, as a neighbour; second, as one who was Prime Minister of this country in the critical hour of choice between comfort and honour; and, thirdly, and perhaps chiefly, as one who never used his high office to shelter those near to him, who was himself one of the bereaved.

The Rt. Hon. H. H. Asquith said he had accepted with great pleasure the invitation which their Executive was good enough to offer him to take part in the opening of that Memorial Library. The world at large, perhaps, was not very familiar with the actual function and ambition of the Architectural Association. But it was a very important one, which took charge, as he understood it, of what in their profession, as in all the humane professions, was the most critical and important stage in the life of those who are aiming at higher things—viz., the stage of instruction and development. He understood the Association had now between 200 and 250 members in its classes. It was a remarkable and significant fact that in a comparatively small body like that there was sent to the war a contingent, whom the Memorial Library commemorated, of not less than ninety-six who were killed and died at the Front. More than that, the Association did a very great service, as he well remembered.

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THE A.A. MEMORIAL LIBRARY. ROBERT ATKINSON, F.R.I.B.A., Architect.

in the early days of the war by starting for its own profession a recruiting bureau, from which over 2,000 members of the profession were ultimately sent to the Front in one capacity or another. Not a few of those obtained positions and high distinction in the Army, the Navy, and Air Force, and particularly, as one might expect from the training, in that glorious Corps of the Royal Engineers. That was a great record, and one which should be preserved in perpetuity for posterity. Might he say that when one saw scattered over the country every kind of War Memorial, some of them, alas! not wholly appropriate, he thought the Association had acted wisely in choosing as their Memorial a nucleus of a Library, which could be added to by gifts from time to time, and be a source of instruction, illumination, and development for the coming architects of the future. He could not imagine a more fitting memorial of their honour for the dead. If there was a profession wedded to the arts of peace by all its traditions and associations it was an architect's. For theirs was essentially not a destructive but a constructive vocation. And yet, in response to the great call, there was as ready an answer from the architects' ranks as from any other calling. And why was there that ready answer? It was because the war made its most direct and compelling appeal to those who desired the realisation of the highest of all human hopes, the permanent peace of the world. It had indeed for its immediate object the victory of Right over Might, the enforcement of the sanctity of treaty obligations, the defence of European liberty and of the independence of small States. But to those who from the first grasped its real and ultimate purpose it had a still larger end: this was to put a final conclusion to war itself. And it was by the degree that it has attained or may and will attempt that end that in the long run it will be judged. If one surveyed the three years of so-called peace and the actual condition of things one might almost be inclined, at the moment at any rate, to say that from this wider point of view the war had been fought in vain. The world still bristles with arms. The annual expenditure of the nations upon the machinery of destruction is greater at this moment than ever it was before, and science is still at work encompassing new methods and new engines to restock what may truly be called the devil's armoury. It was, therefore, with unspeakable relief some of them—nay, most of them—saw the accounts of what had been going on in these last days at Washington. In the course of a single week a longer step had been taken in advance than in the whole of the last three years. For in his judgment the problem of naval armaments lay on the very threshold of a new and a better future. During the years which preceded the war, while he was at the head of the Government of this country, their annual naval expenditure doubled in amount. That enormous increase was due not to aggressive, but to defensive developments. It was an insurance against an ever-growing menace; and who would now say, in view of the then state of the world and in the light of what happened in 1914 and afterwards, that it was not justified, that it was an unwarranted or an extravagant provision against imaginary enemies? It was nothing of the kind. Without it neither this country nor anyone associated with her would ever have won the war. But it was a curse which we had to inflict upon ourselves to escape even greater evils. But still a curse. To extract an ever-growing toll from industry and force it from the production of wealth to unproductive and destructive purposes. The proposals put forward by the Government of the United States offers for the first time a practical prospect of deliverance, both for ourselves and other great nations and small nations of the world. He trusted and believed that whatever matters of detail might be properly reserved for future deliberation, these proposals will be welcomed and embraced by us here and by the whole of Europe and, indeed, by the whole civilised world, not only in a spirit of negotiation, but as offering a workable scheme by which, without any sacrifice of honour or security, the nations may find immediate and ever-increasing relief from what is becoming an intolerable burden. And be assured of this—if this proposal, in the shape which it will ultimately assume, is once put into active operation the road will be clear for other and even longer steps to the goal which they had in front of their eyes throughout the war. Those like their dead comrades, of whom that Library would be an enduring memorial, would not then have died in vain.

Sir Aston Webb said he had been asked to express to their neighbour Mr. Asquith, their most cordial thanks for coming there to open that War Memorial

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Library. It was a red-letter day for the Association, and one they would never forget. In the early days, when he (Sir Aston) was an active member of the A.A., it would never have occurred to any of them that the late Prime Minister of Great Britain would come and perform such a duty for them. It was to be hoped it might be recorded on the walls that Mr. Asquith did come there, and perhaps a sentence or two of what he said. The members did not forget, and Mr. Asquith's countrymen would never forget, that it was really owing to him that we were enabled to enter this war for righteousness' sake, for the protection of small countries, and of Right against Might and Pride. It was largely owing to Mr. Asquith that the vast armies were raised which enabled us finally to shatter our enemies.

The vote of thanks was formally seconded by Mr. Stanley Hamp, and carried enthusiastically.

Mr. Asquith, in a brief reply, alluded to the proceedings as the most interesting and moving event in the history of the Association.

The general plaster and decorated woodwork at the A.A. premises was carried out by Messrs. G. Jackson & Sons, Ltd., under the direction of Mr. Robert Atkinson, F.R.I.B.A., the architect.

Where existing work had to be matched or extended accurate moulds were taken of the old work and the new cast from same in fibrous plaster and screwed in position. The very fine library ceiling is an example of work done on these lines, the room being formed by moving the party-wall between the two houses, the existing ceiling and cornice being repeated in the added part. The bookcase fittings and War memorial over fireplace in this room are carried out in wood with carton-pierre ornaments from old moulds in the possession of Messrs. G. Jackson & Sons, Ltd., of the same period as the house.

In the other parts of the building placques and other motifs have been selected from Messrs. Jackson's stock models and judiciously placed by the architect.

The new vestibule screen has pilaster caps, frieze ornaments, &c., from old models, and contains above the doors a genuine old fanlight of the same period as the house.

Royal Institute of British Architects.

The following are notes from the minutes of the Council meeting held on November 7:—

New Allied Society.—The Norfolk and Norwich Association of Architects was admitted as an Allied Society of the R.I.B.A. under the provisions of By-Law 78.

Fees for Housing Work.—On the recommendation of a joint meeting of the Practice Standing Committee and the Committee of Housing Architects, it was decided to summon a special general meeting to consider the proposals of the joint meeting for resuming negotiations with the Ministry of Health.

Exhibition of Designs.—It was decided that an Exhibition of the Designs of those candidates from the "Recognised Schools" claiming exemption from the Final Examination under the new conditions be held in the middle of July each year, and that a special meeting of the Board of Architectural Education be held for the purpose of inspecting the designs.

Examinations in India.—It was decided to hold the Special War Examination in Bombay for the benefit of candidates residing in India.

The London University School of Architecture.—On the recommendation of the Board of Architectural Education it was decided to recognise the five years' Diploma and Degree courses of London University as exempting from the Final Examination of the R.I.B.A. on the usual conditions.

Retirement of R.I.B.A. Officials.—The following resolution was ordered to be entered on the minutes:—

Resolved that the Council of the Royal Institute of British Architects do hereby place on record their deep appreciation of the loyal and devoted service rendered by Mr. H. G. Tayler and Mr. George Northover during their long connection with the Royal Institute.

The South Wales Institute of Architects.—The new Rules of the South Wales Institute of Architects were approved.

Statutory Examination for District Surveyors.—Mr. H. R. Chanter was granted a certificate of competency to act as District Surveyor.

Membership.—The nominations of fifteen candidates for the Fellowship and 111 candidates for the Associateship were approved.

Architects' and Surveyors' Assistants' Professional Union.—It was decided to make representations to the Ministry of Labour in support of the claims of the Union in the matter of unemployed assistance.

Iron Portland Cement.—Mr. H. D. Searles-Wood was appointed to represent the R.I.B.A. on the Iron Portland Cement Sub-Committee of the British Engineering Standards Association.

The Registration of Electrical Contractors.—Mr. Alan E. Munby was appointed to represent the R.I.B.A. on the Committee representative of the Institution of Electrical Engineers, Electricity Supply Undertakings, Electrical Contractors, and Electrical Manufacturers to enforce a national standard set of wiring rules.

R.I.B.A. Permanent Staff.

Mr. H. Godfrey Evans, B.A. (Cantab.), has been appointed Assistant-Secretary of the Royal Institute, and Mr. James Haynes, B.A. (Oxon.), has been appointed Secretary of the Board of Architectural Education.

Mr. Evans, who is in his twenty-ninth year, was born in Buenos Ayres, and educated at King Edward VI. School, Norwich, whence he proceeded to Cambridge as a Classical Exhibitioner of Queen's College, where he obtained his degree with second-class honours in the classical tripos, Part I. Mr. Evans played for his College at Rugby football and cricket, and in the Freshmen's match at hockey.

After training with the O.T.C. at Cambridge Mr. Evans obtained a commission in the R.A.S.C., and proceeded with the 21st Division to France in September 1915. Transferring to the Rifle Brigade, he was attached to the 3rd Battalion, and when that unit was associated with the 8th Royal Surrey Regiment in the memorable defence of Le Verguier on March 21, 1918, he was wounded in the abdomen, after which date he saw no further active service.

Mr. Haynes, who is in his twenty-third year, was educated at Merchant Taylors' School, and in 1916 he obtained fortieth place out of 1,000 candidates in the Army entrance examination for Sandhurst. He was for some time at the Royal Military College, and later, preferring artillery work, passed through the First Artillery Cadet School, and obtained his commission in 1918. He was then posted to the Royal Horse Artillery at Woolwich, and afterwards served for some months in France in the 7th Brigade Royal Horse Artillery, First Cavalry Division. On demobilisation Mr. Haynes proceeded to Hertford College, Oxford, and graduated as Bachelor of Arts in 1921 with honours in the School of Jurisprudence. He identified himself very fully with the life of the University, and rowed in his College Torpid for one year, and in his College Eight for three years, and was also tried for the 'Varsity Eight.

The next Congress of the Royal Sanitary Institute will be held at Bournemouth from July 24 to 29, 1922, by invitation of the Mayor and Town Council.

The Grand Picture Houses (Sheffield), Ltd., are proposing to erect a cinema theatre with seating accommodation for over 2,500 people, together with restaurant, tea-rooms, large ball room, &c., on a site already in their possession at the foot of Snig Hill, Sheffield. Plans have been approved by the Corporation. Mr. T. W. Newbold, of Surrey Street, Sheffield, is the architect, and Mr. Bertie Crewe is the consulting architect.

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London Art Galleries.

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Last week was an important week in the London Art Galleries. Besides the Royal Society of British Artists, which opened its exhibition on November 5, there was the Grosvenor Gallery Winter Exhibition of paintings and drawings by contemporary British artists opening on Thursday, Nov. 10, and on the day following the Private View of a very important exhibition, that of the Royal Society of Portrait Painters, held on this occasion at Burlington House. Besides these there were two interesting smaller exhibitions which I shall take first before treating in detail the two last mentioned.

At the Halcyon Club, under good conditions for space and lighting, Miss Bridget Keir is now holding a display of her recent water colours, including her work during last winter in Egypt. This artist held last year a very successful exhibition at Walker's Galleries, which was duly noticed in these columns; she will show again at the same Galleries in June of next year, when the special feature of her exhibition will be her Egypt water colours, only a selection from which, some eighteen in all, are included in the present display. These show clean direct work, carried through in almost every case in one painting, with a delicate perception of colour. We feel this especially in such scenes as "The Ferry, Luxor" as "The Valley of the Kings," as "Dawn in the Desert," with its opalescent hues and sense of mystery, or as the view of "Cairo from the Nile." Miss Keir has already done some delightful studies of London, two of which exhibited here, "Westminster" and "St. Paul's from under Waterloo Bridge," I noticed particularly; and I gather from the artist that she is devoting herself specially to London again this winter, and revelling in its atmospheric effects, which have always a strong appeal to water-colour artists.

The exhibition opened on Tuesday, November 8, at the Victoria and Albert Museum of Armenian architecture from the sixth to the thirteenth century, is one of very remarkable interest, especially to readers of THE ARCHITECT. The drawings here shown are the result of years of research by Mr. Fetvadjian, who is an enthusiast for his own people and his subject. What seems certain is that among Christian architecture that of Armenia comes very early into the field, commencing in the sixth century, and having its period of development, fullness, and decline. Under the pressure of the Tartar hordes the Armenians were driven out of their country, carrying with them their trade and architecture. Mr. Fetvadjian has told me that Armenian architects were invited to Cairo by the Caliphs; and has suggested that, from the result of his own studies, the Moorish arch may be traced to Armenian sources, and perhaps the Romanesque style in Europe may be influenced from the same direction. What occurs to me in looking at these drawings, these circular churches with their conical cupolas, that Byzantine influence may be there; and Mr. Lethaby, in his excellent preface to this exhibition, remarks that "original as the architecture of Armenia undoubtedly was, it was visibly influenced by the artistic currents of its time, chiefly Syrian, Coptic, and Byzantine at first, while in its turn it contributed to the later Byzantine, and the arts of Georgia and Russia." These churches were often constructed of finely joined masonry, having a core of concrete, and their ornamentation must have been most varied and richly detailed. A series of water-colour studies of women in Armenian costume of the different districts adds interest to what is already a display which my readers will do well not to miss. I gather it will remain on view for several weeks.

In the present cold weather visitors to the Grosvenor Gallery must put on their warmest wraps before they face Sir C. J. Holmes's "Farm in Winter": a wonderfully clever piece of paint-work, it certainly conveys the impression of a temperature below zero. Then, if they need reviving, they may turn to the next wall to Lamorna Birch in his "Prelude"—the morning prelude to some glorious summer day—or to John Sargent in his wonderfully alive figure of "Lady Sassoon." One feels before this that for sheer technical force and revelation of character none of the modern men can yet excel our greatest portraitist of the last century's end, and of the beginning of this disturbed time in art and economics. I noticed, especially among the subject paintings, Charles Ricketts's "Daughter of Herodias," where the unpleasant character of the subject is more than compensated by the rich colour; and among the landscapes Mr. Wilson Steer's "Southampton Water," carried through in exquisite tones of silver grey, one of the finest things, to my mind, that this artist has ever done. The end of the Long Gallery holds Mr. Munnings's "Changing Horses"; and this leads me to speak of this artist's notable contribution to sculpture now in the Grafton Galleries, its subject a mounted figure, in bronze, of a young lieutenant of Hussars. The soldier is in fighting kit, bareheaded and looking straight out before him, firmly seated on his charger, who stands still; admirable in modelling is the horse, and the whole is a remarkable creation for one who is a painter by profession, but who had to help him here a thorough knowledge of that noble animal the horse.

At the Grosvenor I noted a "Small Yacht Luffing," by Alice Fanner, full of breezy movement; Laura Knight's beach paintings and Harold Knight's "Bathing Pool," with a seated nude figure outlined against the intense blue of the water; some brilliant drawings by John; and among the portrait work Harold Knight's "Miss Lena Macdonald," Gerald Kelly's "W. S. Maugham, Esq., as The Jester," looking very well groomed, and Charles Shannon's delightful "Lady in Fur": but for portraits we had last week to go to Burlington House, and I come now to this successful and important exhibition.

The Royal Society had this year, with the Royal Academy Galleries at their disposal, to make a big effort to justify their selection: that effort has been made, and made, I consider, with a very large measure of success. To aid them they have, not unwisely, called in the aid of past masters in their Society: Watts, Whistler, Millais, Herkomer, Sargent hang here upon the walls beside Lavery, Fiddes Watt, Whiting, Jagger, and the moderns. The older masters here stand the test very bravely. G. F. Watts, in his "Mrs. Percy Wyndham," is stately, dignified, perhaps inspired by the old Venetians; Whistler, less successful in "Mrs. Charles Whibley," is marvellous in the subtle sense of values of the grey and silver "Petite Souris"; Millais is in the best of his middle period in the group of the three Misses Armstrong, the beautiful sisters of the late Director of the Irish National Gallery, a painting recalling the tradition of Reynolds; Sargent is clever but restless in "Lady Meyer and Her Children," where a certain yellow note in the colour seems to assert itself.

But no less do the present members come forward with success. At the private view I found that Howard Somerville with the figure, striking in pose and colour, of "The Red Burnous" attracted attention; J. McLure Hamilton's "Rt. Hon. H. H. Asquith," though thin in colour, almost a sketch, is marvellously clever, nor less so J. J. Shannon's "Eleanor," or R. G. Eves's "Miss Barbara Scott." Miss Flora Lion has four portraits, one of the most interesting that of "Mme. Merry del Val," a head and shoulders, draped in a creamy white mantilla. I noticed particularly in this exhibition the portrait work of Miss Anna Airy ("Mrs. McEntire" and others), and of Malcolm Gavin, whose three-quarter length of "Mrs. Peel," quiet in tone, almost grey, is admirable.

S. B.

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Armenian Architecture at the Victoria and Albert Museum.

By Cyril G. E. Bunt.



THE CHURCH ON THE CITADEL, ANI.
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Architects will have noted with interest the announcement in the public press of an exhibition of architectural drawings by A. Fetvadjian, an Armenian artist, at the Victoria and Albert Museum. To the general public these delightful drawings will appeal as pictorial and historical records of a little-known land,—a land of ruined buildings of unexpected beauty. But to the architect they have an added and purely technical interest which demands attention *per se*.

So little notice has been given to Armenian architecture in the past that it is perhaps not too much to say the average student's acquaintance with the subject is limited to a hazy remembrance of the chapter in Fergusson.

But in 1918 Professor Strzygowski published his "Die Baukunst der Armenier und Europas" which, since the war-cloud has lifted, is gradually becoming known. The student therefore has begun to realise that Armenia, the crushed, exploited, and dismembered, is a veritable storehouse of architectural treasures.

The present selection from the drawings of Mr. A. Fetvadjian brings this fact forcibly before us, and affords an unique opportunity for a closer study of these wonderful monuments of early Christian art.

Considerations of space have made it imperative to limit the number shown; and inevitably after the first survey one wishes there were more of them. The water-colour drawings exhibit a power which is no mere cleverness. They are a true artist's sympathetic rendition of the intimate spirit and beauty of the buildings, too many of which are now, alas, mere crumbling ruins. The drawings of details,—pencil work of a softness and precision of touch which raises them beyond the rank of mere studies,—form a most instructive corollary to the larger pictures.

One may well feel that it is necessary to pay more than one visit to this fascinating exhibition. No single detail of any of the beautiful old buildings can be otherwise than of greatest interest. For Armenia is the oldest Christian country in the world, and its art, coupled with that of Mesopotamia, had no small influence upon the early art of Christian Europe.

At least as early as the second century the Church of Christ had made many converts in Armenia, and from the conversion of King Tiridates, about 280 A.D., it may be said to have been a Christian land.

No churches of this epoch have survived, owing doubtless to the persecutions and insurrections that followed the fall of the Arsacid dynasty in 428, during the rulership of Persia which lasted from then until the seventh century. But there is no doubt that the paramount influences of Syria, Egypt, and Byzantium had already made a lasting impression, while later the Persian domination and the ascendancy of the Merwanid dynasty (Mussulman), tenth-eleventh century, added its quota. Armenia in its turn, during the hey-day of its artistic power, amply repaid the debt by strengthening late Byzantine art on the one hand, and on the other by laying the foundation of the wonderful Vladimir-Suzdal school of Russian architecture through Georgian channels.

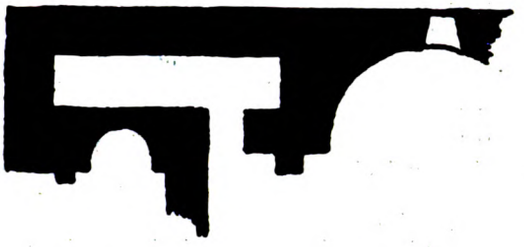
Of the earliest churches surviving Fetvadjian gives us pictures of two and details of a third. One, the Church of the Princes Kamsarakan, Ani (No. 15), dates from the fifth century, and is the oldest church in Armenia. The other is the shell of the fine sixth-century basilica at Ereruk (No. 13). Much interest attaches to this pre-Byzantine building, the roof of which has gone, though the semi-dome of its noble apse still holds. Its doorways are classic in type and contrast strangely with the quaint mouldings of the windows above. A number of

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capitals, lintels, and one of the windows are among the drawings shown. But a feature that does not appear is the presence of external niches on either side at the apsidal end (see rough diagram).

A single niche similarly placed is present at the church of the Trinity Tekor of similar age. Among the detail drawings is an interesting trefoil-headed window of this church with two birds and pendent grapes carved above the label (No. 34).

From churches of the next two centuries ornamental details only are given by the artist. But it is worth remembering that already during this century Armenian architects were employing the drum-carried dome, the vaulting of which is generally covered with a conical roof. At this early period, too, we find (at St. Ripsime,



Ereruk. Exterior Niche.

Edgmiatsin), one of the peculiar features of Armenian architecture—the angular, external niche. These are quite different from the niches of Ereruk and Tekor, and serve to lessen a little the wall mass on either side of the apses.

Passing to the ninth century Fetvadjian gives us a charming water colour of the ruined cloister church of St. Minas, Horomos, which is peculiarly interesting in that it shows the construction of the Armenian dome. Invariably this, like the walls, is formed of a core of hard, well-knit concrete, cased in stone extremely well constructed. The drum is circular with plain false-arcading. Three good examples of decorated archivolts showing the scalloped niche canopies are among the details (No. 44). These may profitably be compared with later examples from Oghouzli Klidzgonk and Ani.

No less than three water colours, besides many details, depict the architecture of tenth-century Armenia. All three are from Ani, Armenia's capital during the Pakradian dynasty, from this time onward the centre of its life and artistic expression.

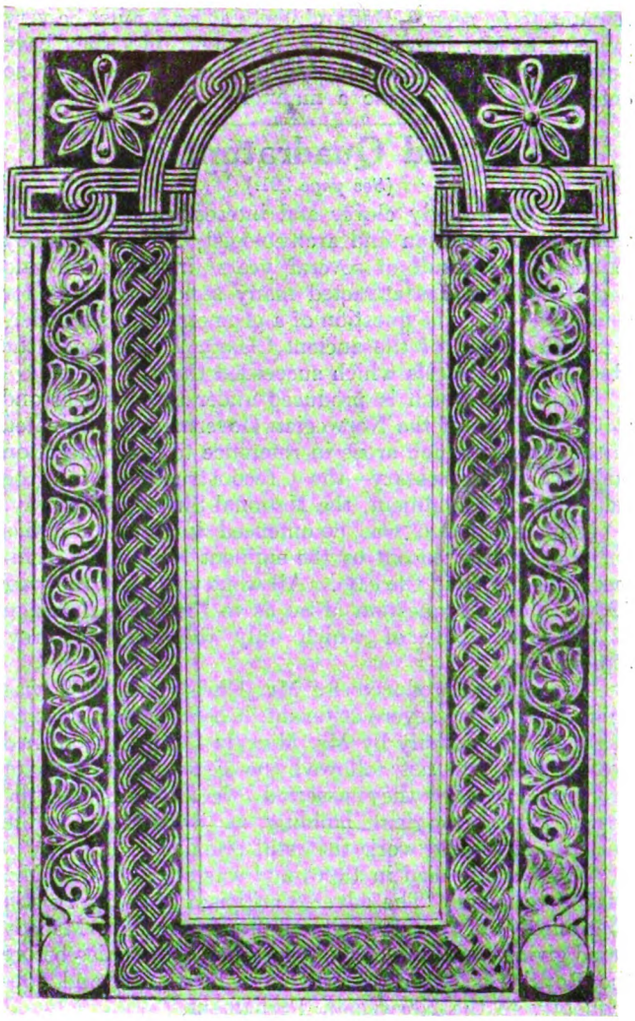
At the present day less a ruined city than a series of wonderful fragments, it is a site that should be conserved with the greatest care. Piled heaps of stones mark the sites of former buildings though the effacing hand of Time has obliterated the details of its streets. The havoc of the ages, and the last catastrophe, the earthquake of 1319, have nevertheless spared us much to marvel at, as may be seen by the Fetvadjian drawings.

The church of St. Gregory of the Abouhamrentz, Ani (No. 8), is perhaps the most interesting of the tenth century. It is of a type much affected by Armenian architects,—less perhaps a church than a memorial chapel. One may classify the type as circular although this one is dodecagonal, with a round drum. The Armenians were exceptionally clever at designing these round churches, which interiorly were often no more than a cluster of four or more apses. These apses, being hidden in the thickness of the masonry, were only marked outwardly by the long V-shaped niches. Two outstanding features of this tenth-century church are worth mention. One is the uncommon form of the arcading on the cupola drum, which, instead of having a series of arches resting on pilasters, has a series of contiguous pilaster-like mouldings carried right round with no capitals to mark the springing of the arch. The other feature—one it shares with some of the later churches—is the possession of pointed arches.

The church of the Holy Apostles, Ani (No. 9), is another instructive ruin. The drawing shows a threefold mixture—the pure Aniiski style, the incipient "gothic" of the clustered pier and pointed arch, and the rich Saracenic decoration of an addition slightly later (it may be presumed) in date.

With the eleventh century we pass to the golden age of Armenian architecture. The mature florescence of the preceding centuries at length attains perfection and its symbol is Ani Cathedral (No. 4). This is the *chef d'œuvre* of the Aniiski style, and exhibits a restrained dignity and masterly control of proportion and decoration. It was begun in 980 and finished in 1001 by the Armenian architect Tiridates, who is known in the West as the restorer of the dome of Hagia Sofia, Constantinople. Its simplicity of form is relieved by elegant false-arcading on all four façades and deep niches on three sides. The canopy of one of these is depicted in frame 42. It is not merely elaborate, it is an excellent bit of detail as perfect as the rest of the church.

It is impossible to mention in detail a tithe of the interesting buildings dating from this century. The Fetvadjian water colours give excellent pictures of many. Each has some fresh architectural attraction. The



WINDOW: CHURCH OF ST. PAUL, MARMASCHEN.
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Shepherd's Church, Ani (No. 11), a small polygonal chapel of two storeys and a plain drum, shows the shell of the dome where the roofing has fallen. It has the characteristic niches on both storeys—those on the lower occurring on many facets giving a ground-plan practically star-shaped. The Church on the Citadel, Ani (No. 17), one of the prettiest of the drawings exhibited, shows a fine pointed arch springing from piers having square dosserets and oval capitals.

The Katholikosat—the so-called Mosque—(No. 20), the building with a tall, octagonal tower, dates also from this prolific time, as also do the fortifications of Ani and

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the ruined "Royal Palace" (No. 22). The latter shows the celebrated Saracenic window, with ogival moulding inlaid with a lozenge diaper of red and black.

The Saracenic admixture observable at this period is doubtless due to the fact that Armenia was, as it were, between the Christian and the Mussulman worlds, and that the Merwanid dynasty held territory near Lake Van.

That it persisted is seen abundantly in the decorative details of these and subsequent centuries. The fine doorway of St. Lance, Airi-Vank (No. 67), of the twelfth century, with tympanum of pomegranates and grapes, has an excellent Saracenic border. And the thirteenth-century church of St. Gregory the Illuminator, Ani (No. 5), has a ruined Saracenic narthex later, of course, than the nave.

With this fine little church we must close our survey. It will be seen that it is not unlike the Cathedral in form. The elegant arcading is the feature of note. The arches carried on slender double pilasters are elaborately carved, as, too, are the interstices,—the whole having the appearance of a rich frieze in relief. Similar arcading is seen on the drum, and above a band of low relief.

Whether the exhibition of these drawings (they have also been shown in Paris) will, as it should, awake the Western archæologist to take Armenia at its worth remains to be seen. But architects at least must be very grateful to Mr. Fetvadjian for the opportunity they have here to approach a fascinating branch of their study in so entertaining and artistic a manner.

"Ad Quadratum."

(*See page* 291.)

This exceedingly clever and interesting book by the well-known historian and archæologist, Mr. F. Macody Lund, is the result of several years' investigation into a problem that has attracted many serious thinkers for centuries—viz., the question of a geometrical basis underlying the design of the ancient Classic Temples and the Mediæval Cathedrals which succeeded them.

The book, which is produced under the auspices and at the expense of the Norwegian Government, originated in the dispute which arose in reference to the restoration and—where necessary—the reconstruction of the Cathedral of Trondhjem, the National Shrine of Norway.

This restoration was commenced in 1869, and has been largely carried out by the eminent Norwegian architect, Mr. Christian Christie. All went well until the year 1900, when the question arose as to the original design of the west front, of which only the ground storey remained.

The design produced by Mr. Christie in 1903 was subjected to very severe criticism, it being urged by some of the critics, notably by Mr. Macody Lund, that he had not studied and not followed the geometrical basis of proportion which they asserted were the keys to the design of the original building as evidenced by the portions of the old work that still remained.

Mr. Christie died in 1906, and was succeeded by Mr. Olaf Nordhagen. The adverse criticism of the work still continued, until in 1915 it culminated in Mr. Macody Lund giving a résumé of his researches and studies before the Royal Society of Science in Christiania, and subsequently to the Norwegian Parliament.

The latter were so impressed by his statements and drawings showing the results of his investigations that they ordered the suspension of all work at Trondhjem, and decided to bear the expense of further researches, as also of the publication of this book.

Mr. Macody Lund's studies and investigations have led him a long way from Trondhjem, and his conclusions are of world-wide interest. He was convinced that there was a scientific formula, a geometrical harmony on which the whole of the proportions of Trondhjem Cathedral were based, and he set himself to discover it? This he eventually succeeded in doing, and in conclusively demonstrating that a definite harmonic geometric basis governed the whole design.

Mr. Macody Lund then proceeded to study the plans and designs of the more important Mediæval European Cathedrals, and he found that their great ecclesiastical edifices submitted themselves to the same harmonic geometric system.

He then applied this system to the Ancient Classic Temples erected by the Greeks, amongst others "The Parthenon," "The Temple of Poseidon," at Paestum, "The Temple of Athene," at Ægina, "The Temple of Concord," at Girghenti, and others, with the result that the same basis of harmonic geometric proportion was found to apply to them, which shows that to the designers of the European Mediæval Cathedrals had been handed down the methods that the Greeks used in proportioning their temples.

These methods were, no doubt, carefully guarded and kept secret, which would probably account for their eventual disappearance.

It is this forgotten science, for so long a matter of thought and investigation by many eminent men, among whom none figures more prominently than the great French architect, Viollet-le-Duc, which Mr. Macody Lund claims to have rediscovered.

In "Ad Quadratum" will be found a large collection of drawings and diagrams of the various classic temples and mediæval cathedrals, with Mr. Macody Lund's analysis of their design.

In all of them is found this harmonic geometric system built up on the square, its diagonals and resultant figures.

It is impossible here to go into all these geometrical and mathematical problems, but Mr. Macody Lund has laid open all his investigations, and his methods can be checked.

It is particularly interesting to work out the analysis of the "Temple of Concord at Girghenti" and the "Parthenon," as also that of mediæval cathedrals, such as Cologne, Notre Dame of Paris, our own Cathedral of York, &c.

"Ad Quadratum" is indeed convincing in itself, nevertheless, it is remarkable that another investigator has, entirely unknown to Mr. Lund, recently advanced arguments and proofs which bring absolute support to those put forward in this book.

It will be remembered that Mr. Jay Hambidge read a paper before the R.I.B.A. in 1920, and another this year on "Dynamic Symmetry" as applied to Greek design which he has also embodied in a book entitled "The Greek Vase," "Dynamic Symmetry."

A very noteworthy fact arises, that these two gentlemen, neither cognisant of the other's practically identical studies over a long period of years, should have arrived at the same conclusions.

Mr. Macody Lund commenced his investigations with Norway's historic "Cathedral of Trondhjem," thence he traced the system through the various European mediæval cathedrals, and finally back to the Greek temples.

Mr. Jay Hambidge commenced with the Greek temples, and has at present confined his studies to Greek art. His title "Dynamic Symmetry," which is a method for establishing the "relationship of areas in design composition," might well be the title of Mr. Macody Lund's book, the one confirms the other.

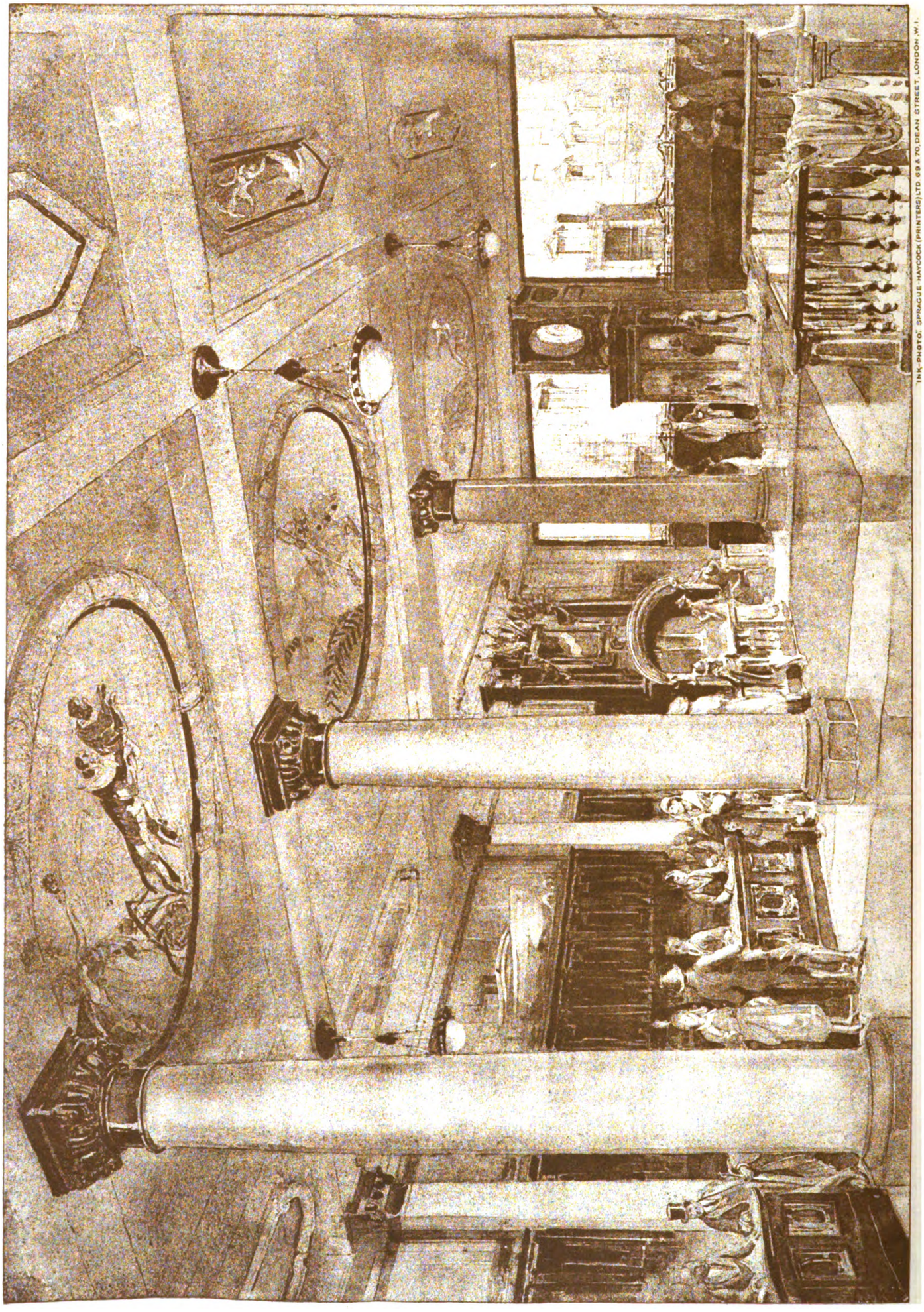
"Ad Quadratum," which has been justly described as an epoch-making book, is of exceptional interest to the whole of the art-loving public—by all architects, artists, and craftsmen it is well worthy of the most attentive consideration and study, for it can be in their hands a most exquisitely tempered weapon, which will greatly help them in visualising and designing their conceptions.

At a general meeting of the Royal Institute of British Architects on Monday, December 19, at 8 P.M., Mr. Thomas E. Collcutt, Past-President of the R.I.B.A., and Royal Gold Medallist, will read a paper entitled "A Plea for a Broader Conception of Architectural Education."

The Mid-Glamorgan Water Board, which was recently constituted by Act of Parliament, contemplates the carrying out of new works at an estimated expenditure of about £250,000. The scheme provides for the laying of new mains through the Llynfi, Ogmore, and Garw Valleys, and down to Bridgend.

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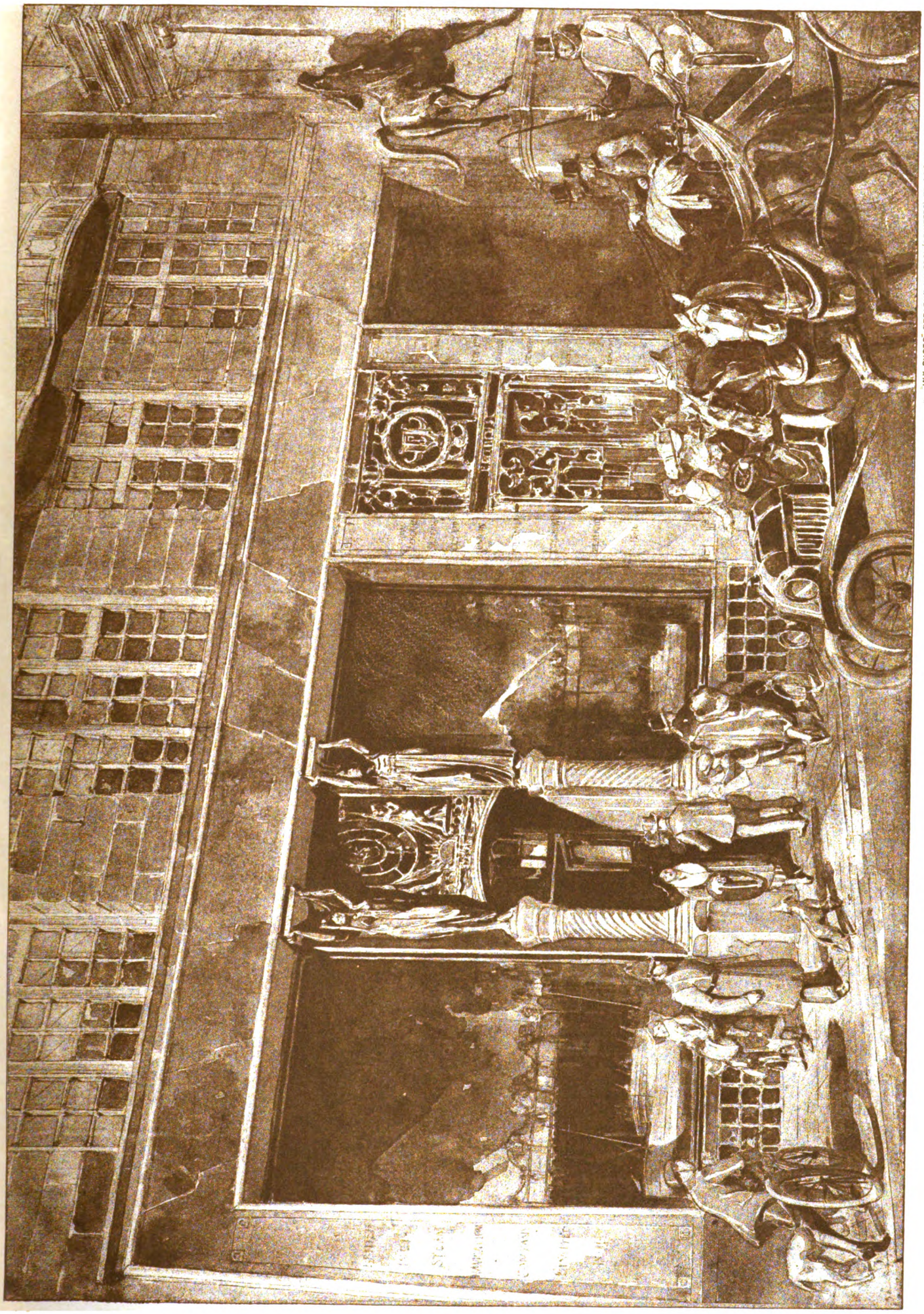
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VIEW BY ALFRED CONRADE.

ARTHUR T. BOLTON F.S.A., F.R.I.B.A. ARCHITECT

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VIEW BY ALFRED CONRADE.

ARTHUR T. BOLTON, F.S.A. F.R.I.B.A., ARCHITECT.

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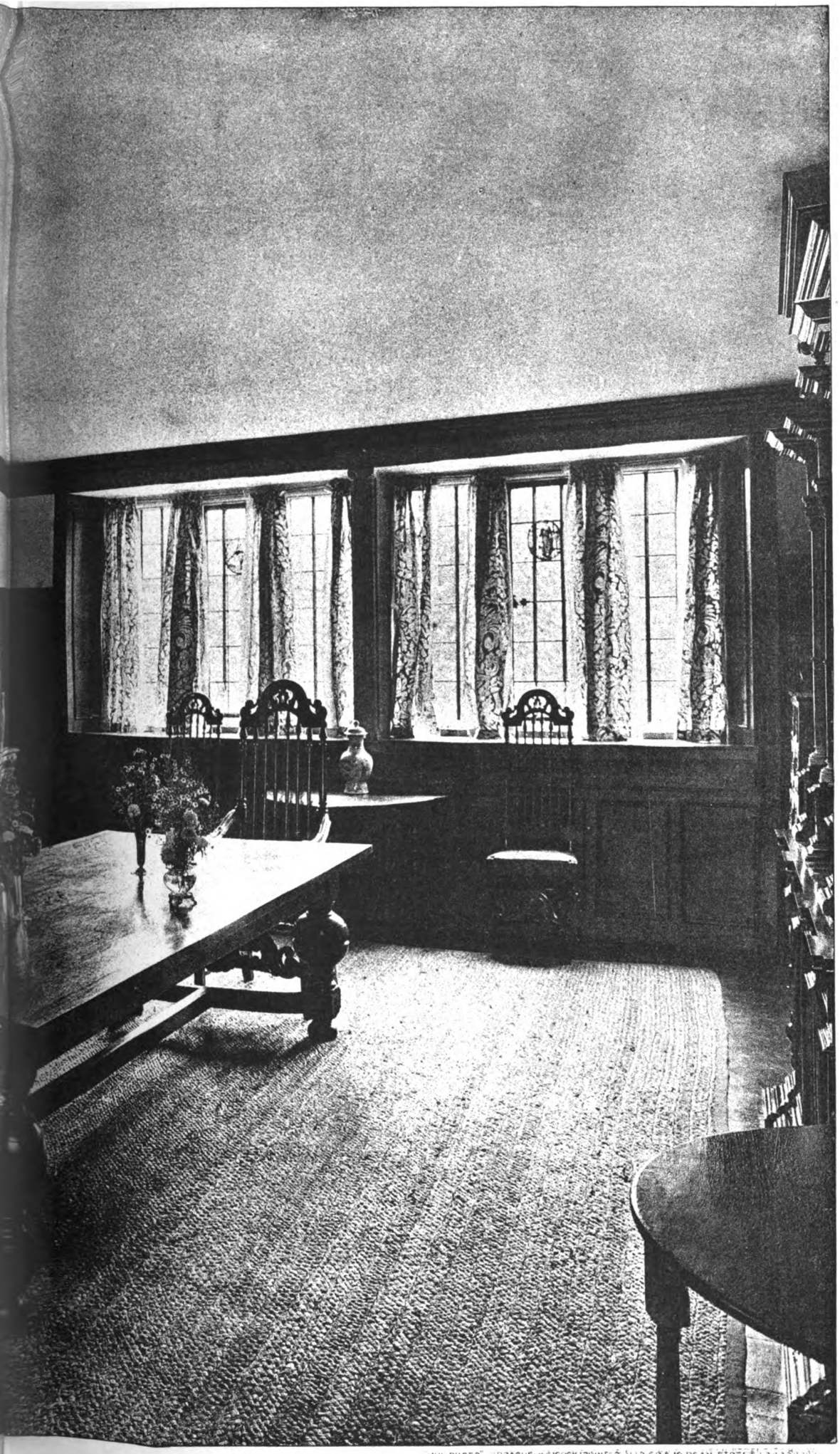
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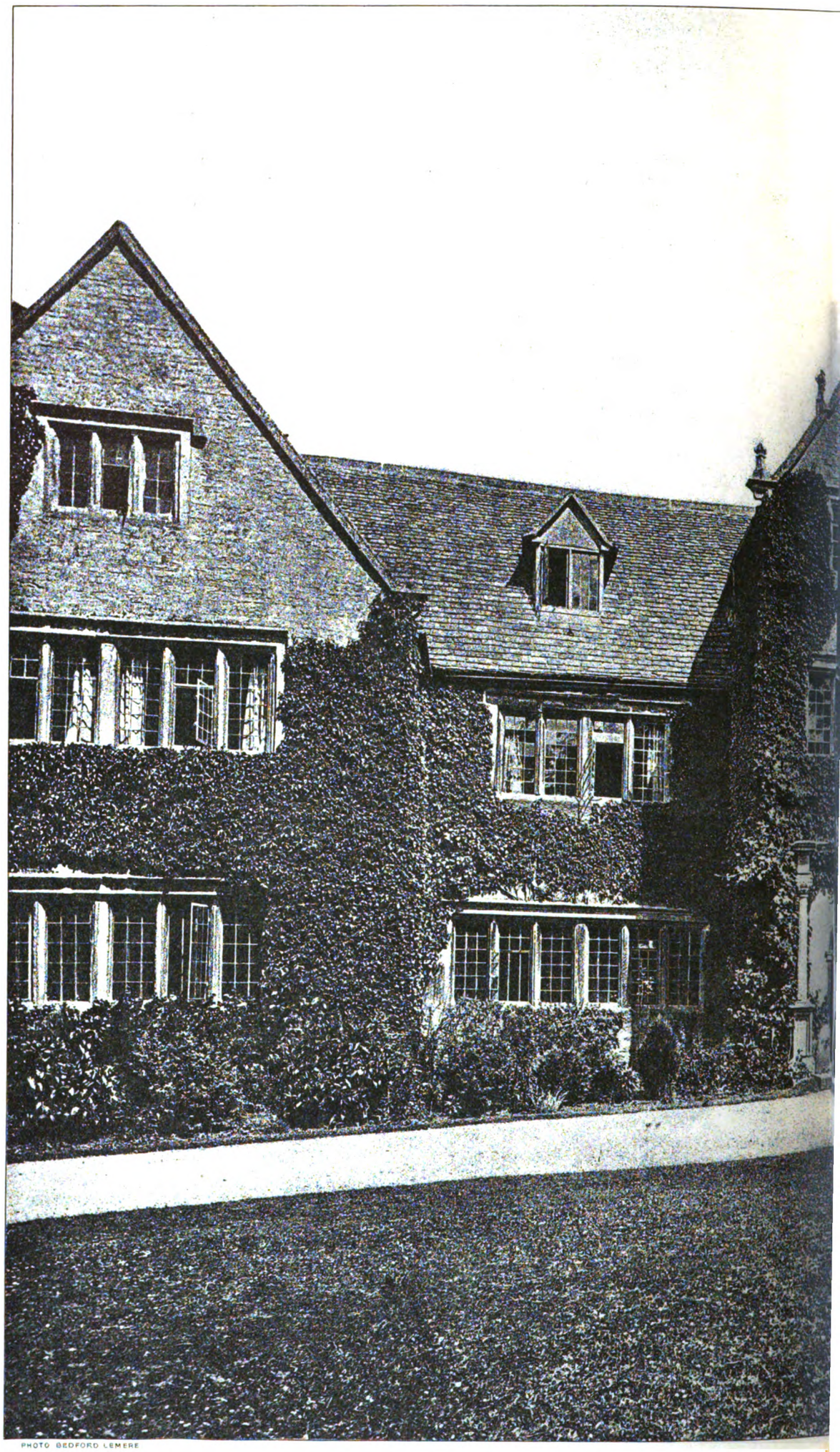


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ON, OXFORD, A.D. 1688.
MAS GARNER

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The Building Trades' Parliament.

The quarterly meeting of the Industrial Council for the Building Industry opened at Montagu House, Whitehall, London, S.W., on Thursday afternoon, the 10th inst., and was continued throughout the following day. Mr. James Storrs, chairman, presided at the opening session.

The first business was the consideration of a report by Mr. J. Batchelor, the treasurer. It stated that at the annual meeting in July last it was decided to adjourn the question of the levy for the present year. At the previous annual meeting it had been agreed to make a levy of £2,000 in order to provide the Industrial Council with a working fund to meet current expenses. The year had ended with a balance of some £370. The Administrative Committee decided to recommend the next levy should be £1,000—half from the employers and half from the operatives.

Mr. E. J. Brown, speaking as the only dissentient from that recommendation, warned the Industrial Council that it stood in danger of losing certain constituent bodies which did not consider they were getting value for money. He considered the balance in hand was unnecessarily high, and urged that a smaller levy should be made.

Mr. Batchelor defended the recommendation on the ground of the necessity for preserving a substantial balance to meet the many expenses which it was impossible to foresee with any exactness.

The report was carried unanimously.

Mr. Thos. Foster, chairman of the Management and Costs Committee, introduced at some length a private and confidential report on the replies received from the adherent bodies with regard to the "Supplementary Scheme of Unemployment Insurance" approved by the Industrial Council and circulated for their information on the principles involved. One of the objections raised by the Employers' Federation was that the present time seemed inopportune for embarking upon schemes involving additional expenditure. The answer of the Committee to this was that at the earliest the scheme could not be put into operation for another year, and that it might be deferred longer if desired. Apart from that, they maintained that the expenditure will be a productive expenditure which by mitigating fear of unemployment will of itself lead to an increased output and improved prosperity for the industry. The Federation foresaw difficulties with regard to the definition of the scope of the scheme and as to the feasibility of working it where building-trade operatives are not employed by building-trade employers. The Committee recognise this as a very real difficulty and recommended that representative bodies of the industries who normally employ such men should be approached with a view to arriving at a mutual agreement. Finally, many of the Federations argued that a supplementary benefit would tend to make certain of the operatives prefer to remain on the fund rather than to seek work. The Committee, in reply, point out that in practice the operative does not himself decide whether he is entitled to unemployment benefit or for what period he shall remain on the fund. If the money is provided by joint contributions, and administered as now by the Operatives' Unions, in co-operation with Employment Exchanges, it would be to the advantage of both parties not to keep men on the fund unnecessarily. So far as the trade unions are concerned, the replies received by the Committee indicated general approval, subject to the proviso that the detailed scheme shall be submitted to a ballot of the members. Mr. Foster declared this proposed amelioration of the workman's position when suffering from unemployment was long overdue and might anticipate the troubles which would arise if we merely "let things happen" and "muddled through."

Mr. Wm. Cross (Operatives), Vice-Chairman of the Committee, warmly repudiated any suggestion that the supplementary scheme would encourage operatives to slack. It would be to the disadvantage of trades unions if the benefit was drawn unnecessarily. Many operatives considered the charge for the proposed supplementary insurance ought to be borne by the industry without any help from them. In his own opinion the report represented the minimum of anything that could be proposed.

Mr. S. Smethurst (Employers) supported the approval of the report, and urged that it should be recommended for acceptance by the various Federations composing the Council. Twelve months ago such a scheme would have had the approval of employers. The Government actuaries had advised them that the proposed contribution of 8d. and 7d. from the employer and workman respectively were the amounts required. Personally he desired to see a condition arise in this country, when the man who worked should have an absolutely assured position, with no dread of unemployment and the scrap heap. Such a step ought to result in good feeling on both sides, which at present was killed by groundless distrust. If the meeting decided in favour of the scheme he trusted the constituent bodies would not dally. It seemed wrong that the Committee should keep sitting week after week and wasting their time.

Mr. George Hubbard (representing the Royal Institute of British Architects) explained that, though he felt every sympathy for the man out of work, yet he was not sure that the resolution was sound in principle from an economic point of view. The best chance of increasing employment was by lowering cost of production. The effect of the resolution would be to add to that cost, and so it must prove a retrograde step.

Mr. J. M. Macfarlane (Employers) did not think the Management and Costs Committee would have the full and impartial spirit for such a task until its personnel had been radically revised. The majority of the members went to the consideration of the views involved with a personal prejudice and political bias. Sir William Beveridge had told the Statistical Society in Manchester that output decreased in proportion as unemployment decreased. A wholesome fear of unemployment caused men to increase it. His own solution of the whole matter would be to so make such allowances within the earnings of the operatives that they would be enabled to make arrangements for a rainy day.

Mr. T. Barron (Operatives), alluding to Mr. Hubbard's remarks, said architects lived in an atmosphere so elevated that they did not come into touch with the realities. If Mr. Hubbard meant that by keeping a man from starvation the cost of production would be increased. Mr. Hubbard was wrong. He had been shocked by and protested against the attack on the personnel of the Committee. Surely they had got beyond the theory that unemployment was a good thing. It was to be hoped the recommendations would be adopted, and employers and operatives work in co-operation.

Mr. S. Stranks (Operatives) said he would frankly admit the truth of much that had been said concerning output. The output was wrong during war-time; it was wrong now and always would be unless the relationship of employer and operative was based on a entirely different footing. The operatives demanded a greater independency than was possible for a man with nothing to fall back on in time of depression. A man who has starved for six or nine months is reduced thereby to a state of lowered efficiency and citizenship from which he can never recover. In this matter a larger view was necessary than that of pounds and shillings: they must look at the human balance sheet.

Mr. L. Macdonald (Operatives), in supporting the scheme, contended that present wages did not allow of the workman putting by for a rainy day. To forecast that men would scamp and evade work when it could be obtained was wrong.

Mr. G. Hicks (Operatives) thought the industry ought to be capable of bearing its own burdens of unemployment. Increased output was not a solution, so far as the workman was concerned. When the workman produces the fastest he is the poorest. Personally he believed that anything that could be done to relieve the workman of the nightmare of unemployment would tend to increase output. But, unless some guarantee was

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given, a workman was not inclined to work hard. He was not sure the operatives were desirous of making an increased contribution towards the unemployment insurance fund. They were already very heavily handicapped to maintain a decent standard of life.

Mr. J. Armour (Operatives) pointed out that no alternative scheme had been offered by the critics. The Management and Costs Committee wanted a definite decision as to whether there was an earthly chance of their scheme being accepted. Its principles were identical with those of the Insurance Act.

Mr. R. B. Chessum protested against the personal tone adopted during the discussion. He was convinced the only way out was a campaign for preaching a gospel of two essentials for human progress—viz., thrift and industry. The greatest cause of the present trouble might be dated from the pernicious practice of paying an hourly rate independent of what was produced during that hour. It had had the effect of keeping good men down to the lowest instead of raising men to the highest. Why should the men who were industrious be refused suitable recompense? One economic law was set up for the employers and another for the operatives. But there were certain inexorable economic laws which must be obeyed by all unless disaster is to follow.

The discussion was then adjourned until Friday morning.

Mr. E. J. Strange (Employers), resuming the debate, pointed out that every argument advanced in favour of ordinary insurance could be advanced in favour of the present scheme. The principle of the many making a small contribution to aid the few in time of distress was a good one. One of the first duties of thrift was to insure against the rainy day. Moreover, he would advocate the adoption of this scheme if only for the reason it received the unanimous support of the Committee—a thing which had happened, perhaps, for the first time in the history of the Industrial Council. He did not think it was possible to remove the fear of unemployment altogether, but the unfortunate results from prolonged unemployment could be mitigated. The expectation of malingering could be safeguarded against. But no scheme should be condemned because a few might abuse it. Perhaps it was inopportune at the moment. But a long time would be required for getting through the preliminary details. The scheme would be made obligatory on every employer of building-trade labour.

Mr. F. G. Whittall (Employers) declared that among his constituents in Birmingham and the Midland Centre there existed a deep suspicion of the Committee's interim report. In his opinion it was a very, very fine scheme. The only objection ought to come from the operatives, who have to help find the money. A glorious opportunity was presented. The Council must think out their problems in a spirit of mutual good will. There were stringent rules to prevent malingering. After all it was only £2 a week for the average family while the breadwinner was laid aside.

After various resolutions had been considered the following was finally agreed to: "That the national adherent bodies of this Council be requested to summon general meetings of their members to discuss the proposals of the Management and Costs Committee regarding Unemployment Insurance and take such other steps as they may deem wise in order to obtain the most favourable consideration of the principles involved in the scheme."

COUNCIL COMMITTEES.

The officers are members, *ex-officio*, of all Committees.

ADMINISTRATIVE.

Employers.—Messrs. J. Storrs, A. J. Forsdike, *E. Bruce, J. H. Cantrill, J. P. Cox, S. Easten, T. Foster, *T. Graham, S. Smethurst, H. Willcock, A. G. White.

Operatives.—Messrs. T. Barron, W. Cross, A. Gardner, J. A. Gibson, G. Hicks, L. MacDonald, T. Otley, R. Wilson, S. J. Wright (one vacancy).

Professional. — Messrs George Hubbard, J. E. Drower, E. J. Brown.

MANAGEMENT AND COSTS.

Employers.—Messrs. T. Foster, *T. Graham, Hellier, H. T. Holloway, *G. Rome, S. Smethurst, E. J. Strange, F. G. Whittall.

Operatives.—Messrs. Brading, Coppack. W. Cross, Gosling, G. Hicks, R. Jones, L. MacDonald, Turner.

SAFETY AND WELFARE.

Employers.—Messrs. E. J. Brown, J. P. Cox, Dorman, Wallis.

Operatives.—Messrs. Beckett, F. Kennedy, H. McPherson, Meldrum, Pickles.

EDUCATION.

Employers.—Messrs. S. Smethurst, D. Anderson, *E. Bruce, J. H. Cantrill, R. B. Chessum, J. P. Cox, A. J. Forsdike, J. M. Macfarlane.

Operatives.—Messrs. T. H. Otley, A. Gardner, J. A. Gibson, A. Gill, R. Mardell, H. McPherson, R. Wilson.

PARLIAMENTARY COMMITTEE.

Employers.—Messrs. D. Anderson, E. J. Brown, A. J. Forsdike, F. J. Gayer, W. Moffat, A. G. White.

Operatives.—Messrs. J. Armour, G. Hicks, Stiles, S. Stranks, Warley, R. Wilson.

* Scottish employers.

"The Architect" Fifty Years Ago.

NOVEMBER 18, 1871.

THE NEW SESSION.

THE ROYAL INSTITUTE OF BRITISH ARCHITECTS has entered upon another campaign, and the commander-in-chief has addressed his little army after the usual fashion. There was no stirring appeal, no attempt to rouse the ardour of anyone, and nothing that could in any way disturb the sensation which hovers over this Royal Institute—of that ineffable calm which comes of security. Mr. T. H. Wyatt seemed to feel that he had done enough in the way of brilliancy last year, and that his *rôle* for the present session was to trust in Providence and the course of events. For one moment only did he use the trenchant blade of criticism; in that moment he rose sufficient to the occasion by demolishing Mr. Smirke and the other malcontents in the matter of the Law Courts, with a knightly dexterity of weapon which would have pleased the heart of a literary Cœur-de-Lion. In retiring from this assault the President felt, apparently, no little difficulty. Having once drawn his sword, he was joyous, gay, *debonair*, completely in his element; so much so, indeed, that he even ventured to urge Mr. Street to the combat, and hurled out his defiance in charging the latter with irregularities and questionable fancies in the Strand elevation of the Law Courts. But all this was so sudden and so short that the delicious calm, the comfortable snugness of the meeting was unruffled; and when Mr. Wyatt shut up his MS. men's minds were so comforted by the general tone of his remarks that, beyond a short complimentary proposal of thanks, followed by a brief and almost inaudible seconding of the vote, not another word was said.

Plans are being prepared for a "Theatre Royal, Maidenhead," proposed to be erected at the Marlow Road corner, covering 5,000 square feet.

The Corporation of Stoke-on-Trent have acquired from the present Exhibition at the Grosvenor Galleries an oil-painting, entitled "A Lady in Grey Fur," by Mr. Charles Shannon, R.A.

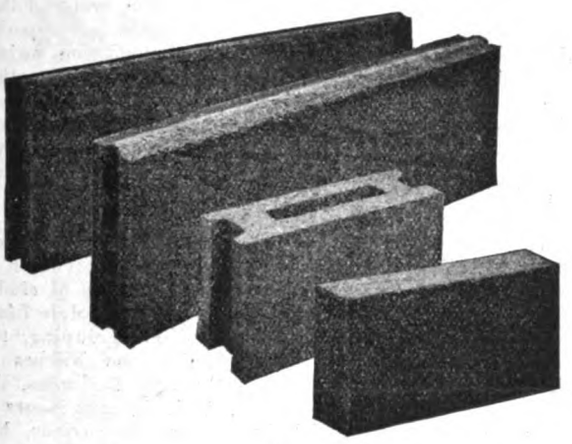
The building of the large hotel at Gleneagles Golf Course, which was partly erected several years ago, but work on which was stopped owing to various causes, is to be proceeded with, it is understood, in the course of next spring.

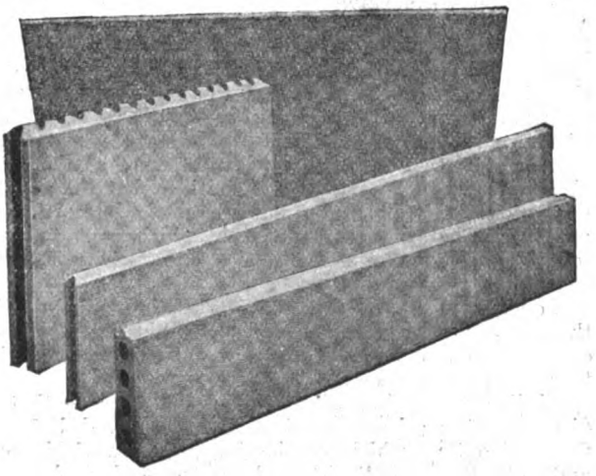
The Kircaldy Town Council are favourably considering a scheme for the construction of a seawall 1,650 yards long in concrete, at a cost of £89,300, along the foreshore of the bay. Messrs. Blyth and Blyth are the engineers.

Atherstone District Council are going to apply to the Ministry of Health for sanction to borrow £59,734 for augmenting the water supply of the whole district from a new borehole which has been sunk at Warton. The Surveyor pointed out that the previous estimate, £64,500, had been revised, and it was found possible to reduce the cost owing to the fall in the price of materials.

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Correspondence.

"What Is and What Might Be."

To the Editor of THE ARCHITECT.

SIR,—I have read with some interest the article in the current issue of THE ARCHITECT entitled "What is and what might be." Unfortunately, the author's name is not appended thereto, an omission which robs the article of much interest which might otherwise have attached thereto.

Also, I have studied the comparative photographs of the elevations of Lloyds Bank, Rye, "what it was" and "what it is now," and, whilst giving due credit to Mr. Horace Field for the simple and pleasing design of the latter, I must confess that I disagree with the tone of the article above referred to, for certainly I consider that the elevation of the former gives one very much more the impression of a public bank building than the latter, which seems to convey to one's mind more the impression of a private dwelling-house than a bank building.

It has been truly said that "Truth is handsomer than the affectation of love," and, whilst this applies to our conduct of life, it is applicable to the principles of architecture in no less a degree.

Unlike the writer of the article, I consider that the directors of the bank are but slightly rewarded for the financial outlay, which, considering "the era of high costs and difficult finance" referred to, must have been considerable.—Yours, &c.,

A. C. HUFFELL, P.A.S.I.

Lloyds Bank Chambers,
Windsor Road,
Penarth, Glam.
November 12, 1921.

Lloyds Bank at Rye.

To the Editor of THE ARCHITECT.

SIR,—Although the new bank illustrated in your last issue is certainly more in keeping with most of the buildings at Rye than the one it replaced, it can hardly be regarded as more "old-fashioned," considering that it is of eighteenth-century style while the former building was of mediæval design, though no doubt of a very conventional and stilted pattern. The astonishing thing is that the opportunity was not availed of to erect a replica of the original half-timber structure which occupied the site previous to its acquisition by the bank twenty years ago, and which, albeit the most picturesque building in the town, was wantonly destroyed, notwithstanding that it was still sound and could, with a little ingenuity, have been adapted for modern purposes.

Its restoration could easily have been effected, since good photograms of it are still extant; also paintings of both frontages, executed by myself, and now hanging in the manager's room, while the main oak door and other portions of the actual edifice are preserved, and therefore could have been copied to scale.

It is disheartening that such a rare chance to reproduce a complete fourteenth- or fifteenth-century building, which would have added such an interesting and unique embellishment to Rye, should have been missed, when a little consideration would have convinced everyone of the appropriateness of such a restoration.—Yours, &c.,

EVACUSTES A. PHIPSON.

111 Oval Road, Croydon.
November 14, 1921.

[Our comment on the above letters is this: First, a bank is a place for the conduct of certain business requiring counters, manager's rooms, and strong-rooms. The space over a bank in a country town or village usually forms the manager's house, and the whole building may reasonably resemble a domestic building with a large room under; second, we see no reason why everyone building at Rye should endeavour to recreate or restore a building which had previously existed there, but we see every reason why buildings should be so designed as to be in harmony with the general character of the locality, and this Mr. Field's design is. —ED.]

Mediæval Architecture.

To the Editor of THE ARCHITECT.

SIR,—It has been my privilege and great pleasure to visit some 64 cathedrals (many of them more than once), besides many old abbeys and village churches of France. In my opinion Chartres as a whole is now the most beautiful of them all. In old age one can reflect upon and compare them with our own, of which, having also visited all our own cathedrals, I give the first place to Lincoln. If it possessed the quantity and quality of the stained glass of York, and an east window with the beauties of form and colour of those of Carlisle or Selby, it would be well-nigh perfect. France has one point of inferiority to ourselves in that so few of her cathedrals are quite complete. On yet another we can also claim that our village churches are superior to theirs in quality, quantity, and present condition, owing, perhaps, in a great measure to revolutions, wars, and other causes.

Le Puy and Auch seem, as somewhat off the main track, to have been less visited by architects than they deserve. St. Bertrand de Comminges, too, now a mere village, and not easily accessible, possesses a cathedral abounding in most interesting features.

The unrivalled beauty of the stone details of Coutances, Limoges (granite), and Semur, as also of Séez (which is poor as to its construction) are all well worthy of study. The spires of Chartres, Senlis, Coutances, St. Pol de Léon, the Towers of Laon, with their wondrous grouping, the vaulting of Beauvais, Amiens, Mantes, the Flèches of Amiens and Dijon, the wondrous Dallage of Mantes, the Cloisters of Mont St. Michel, Arles, Tréguier, the Bosses of Bayonne, with their English heraldries, the curious, but never repeated, perspective of Poitiers, and last, but not least, the glorious glass to be found at Chartres, Le Mans, Rouen, Bourges, Auxerre, Troyes, Beauvais, Toulouse, Limoges, Metz, Auch, Couches, St. Lô, and Alençon.

We should not forget what we owe to the drawings and writings of Burges, Henry Clutton, E. W. Godwin, Axel Haig, Johnson (of Newcastle), Nesfield, Norman Shaw, Street, and others.

Whatever we may say, or think, as to the superiority of Classic or Gothic for modern work, we can all be of one mind in acknowledging, and being thankful for, the beauties displayed so lavishly in the ancient churches of our neighbours, as also of our own.—Yours, &c.,

E. SWINFEN HARRIS, Retired Fellow.

Joinery from Abroad.

An agreement has been arrived at between the National Executive of the Amalgamated Society of Woodworkers and the National Federation of Building Trades Employers that joinery brought into this country from abroad must have been made under fair working conditions.

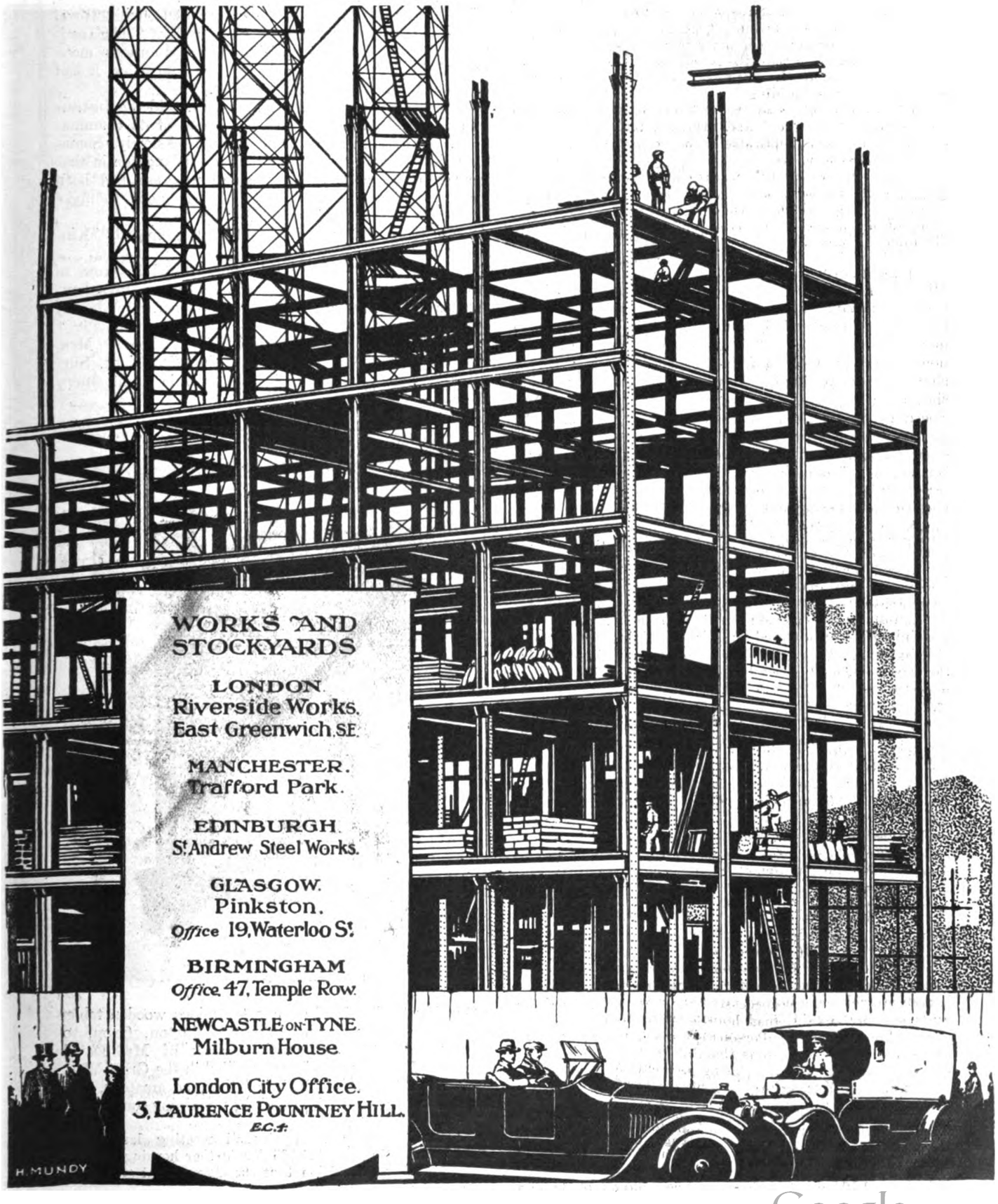
The toprail of the goods must bear a stamp which represents a guarantee by responsible Labour bodies in the country concerned that they are satisfied that their own working standards have been recognised in the manufacture of the joinery. Unless this stamp is on the goods woodworkers in this country will refuse to handle them when they are delivered to the contractors.

"The object of the agreement," said Mr. Shennett, secretary of the London branch of the Woodworkers' Society, "is to prevent the dumping of goods in this country which have been manufactured under conditions which do not appeal to us as trade union men. A lot of this has been going on in the States and British Columbia, especially with regard to house doors. The employers and ourselves have taken this step entirely on our own. No international Labour body has anything to do with it. As far as I am aware, it is the first action of its kind to be taken by representatives of an industry in any country. We do not set the standard of working conditions. We leave that entirely to our Labour friends in the country concerned. Their stamp on the goods is all that we ask. I do not think that prices or housing will be affected."

The Smethwick Town Council decided, at their last meeting, to make application to the Ministry of Health for sanction to the borrowing of £33,645 to cover the cost of erection by direct labour of fifty-two houses. The Mayor said unexpected difficulties had cropped up, but it was hoped within the next week or two to lay the first brick in connection with this important development of their municipal housing scheme. It was also decided to make application for power to borrow £57,050 to cover the cost of the completion of existing contracts for houses and the making of roads on the estate.

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Institution of Sanitary Engineers.

The annual dinner of the Institution of Sanitary Engineers was held at the Holborn Restaurant, London, W.C., on Wednesday, November 2. It was preceded by a reception of the members and visitors by the President, Mr. Nandy Hoskins, M.S.E., M.R.San.I., and Mrs. Hoskins.

After the Royal toast had been honoured, Mr. A. J. Martin (Past-President) proposed "Our Public Health Authorities." The country was, he said, only now on the threshold of public-health administration, and it would probably advance to a point undreamt of by many. He hoped the Ministry of Health would not regard this work as solely a matter for the specialist, but would see that the man in the street was interested in it.

Sir Charles Ruthen (Director-General of Housing), in the course of his reply, said everyone can make suggestions of how houses should be built, what they should be built of, and how quickly. But the task was no easy one. The Ministry of Health, so far as the Government's housing policy was concerned, had been over-optimistic. It desired a gigantic housing scheme, and that houses should be provided in hundreds of thousands. But the Ministry overlooked one important fact, perhaps the most important fact, that to build hundreds of thousands of houses it was necessary to have a gigantic industry, which did not in fact exist at the end of the war. The Ministry had rightly expected the various arms of the trade would give of their best. It was not very long before it was realised there was something wrong. The more tenders and contracts were signed the slower the houses were produced and the higher rose their price. A change had inevitably to take place. The present position shows that the work has progressed fairly satisfactorily. Speed of production must be governed by the strength of the weakest arm. It was necessary to have certain essential skilled ranks, and those skilled ranks, including bricklayers, plasterers, and slaters, are now practically fully employed. The most essential arm at the moment was the plasterers, and of these only 263 were unemployed in England, Wales, and Scotland.

The number of houses completed under the national housing scheme was 53,500, the houses in course of erection numbered 85,000, and there were nearly 39,000 houses still to be begun. In addition there were 42,000 houses under the private builders' scheme, 22,000 of which had been completed, and the remaining 20,000 were still in hand. When the Government decided to restrict the number of contracts a great outcry was made. Figures would prove that immediately this was done the output per man went up, and obviously the cost of houses went down. More important still, the number of completed houses went up. There were, for instance, in January 2,079 houses completed, but in September there were 7,500. In January the cost of an ordinary non-parlour house was £836, and the parlour type cost £947. In September this year the cost was £609 for the non-parlour house and £666 for a parlour house. The number of skilled men employed in January was 48,000, and in September 76,000. The number of unskilled men employed in January was 48,000, and in September 56,000. The methods adopted to produce completed houses had been successful. It had taken the authorities years to realise that housing lay at the root of much of their troubles. Personally he did not consider anyone had a right to assume that the present housing scheme is going to solve the housing problem. He did not believe rents should be subsidised by the State, and he wanted to see houses erected so that they can be let at an economic rent. That was the end to aim at, and if workmen were unable to pay an economic rent then there was something wrong with their wages. Workmen should receive a wage sufficient to pay an economic rent for a house which contains decent conditions. At the same time, it was essential that houses should be built at a reasonable cost. There had been a combination to fleece the State in the hour of its direst need. Six months ago we were building houses which cost £1,100, and these are not worth £600. The present price of houses is not less than £300 lower than they were six months ago. Of this £300, £175 was accounted for by the fall in wages and the cost of materials. The remaining £125 was largely accounted for by a greater output on the part of the workers and by the fact that the master-builder was now accepting less profit than he did six months ago. He believed in a short time we shall be within reach of a £500 parlour type of house, and that will be the rock-bottom price of the post-war house. It will represent a house which before the war cost from £250 to £300.

Mr. Raymond Unwin also responded.

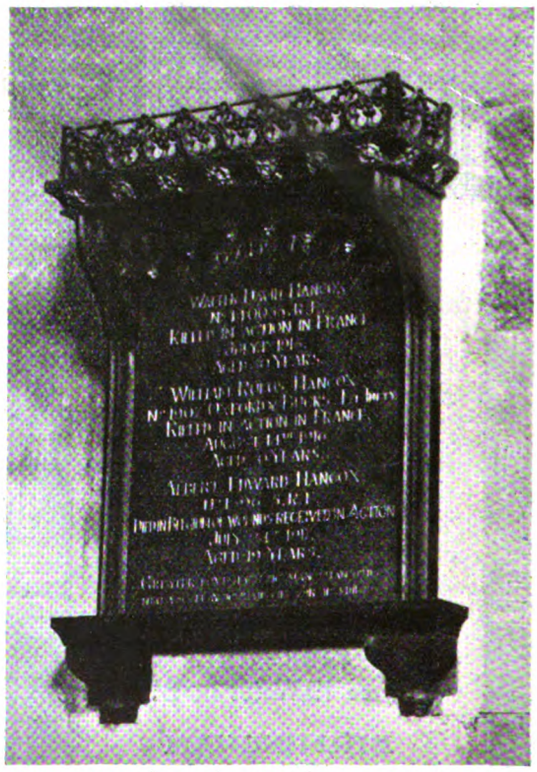
Professor H. Kenwood (Chairman of Council, Royal Sanitary Institute), in proposing the toast of "The Institution of Sanitary Engineers," prophesied an even more extended sphere of usefulness to the Society than it had had during the past twenty-six years.

Mr. Nandy Hoskins, the President, said the Institution aimed at education, and was proud of its examinations. Sanitation was a science that moved slowly. Sometimes he felt this country was on the downgrade in that respect, or at any rate very small progress had been made. In his opinion, much might be done to make existing houses more habitable.

Mr. J. H. Blizard, President-elect, proposed "Kindred Institutions."

Mr. Paul Waterhouse (President, Royal Institute of British Architects) and Mr. Norman Scorgie (President, Institution of Municipal and County Engineers) briefly replied.

Mr. P. F. Whyborn proposed "The Visitors." Mrs. Cloudesley Brereton, Mr. J. H. Sabin (President, Surveyors' Institution), and Mr. H. Greville Montgomery responded.



Our illustration is of an unostentatious wooden tablet erected in the parish church at Deddington, Oxon, to commemorate the death of three sons of Mr. David Hancox, of that place, who were killed in the Great War. The design was made by their father, an amateur, and it was also executed by him and the remaining son.

At the Doncaster Town Council meeting last week, tenders amounting to £121,805 for further housing schemes were adopted, on condition that the Government subsidy is forthcoming.

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The "Kent" Patent System of Construction.



THE FIRST "KENT" HOUSE. Finished May 1920.

This system was invented by Colonel H. V. Kent, C.B., R.E., who, during the first year of the War, was at the head of the Barrack Branch of the Directorate of Fortifications and Works at the War Office.

In this capacity he had the opportunities of studying many different systems of construction—permanent, semi-permanent, and temporary—and when he retired in 1919 he patented the "Kent" system as a result of his experience.

The object of the system is to produce a strong, durable house which will resist extremes of temperature and be extremely simple and rapid in construction, and therefore, by reducing skilled labour and time to a minimum, to effect a marked reduction in the cost and time of construction.

By standardising window frames and door frames, and working on the "Unit Bray" system, great economies can be effected, but the principle saving results from the method of screwing to the piers the door and window frames, and the slabs forming the panels.

The system is based on the well-known "pier-and-panel" principle, the piers being of reinforced concrete, preferably made with "Super-cement" so as to make a lasting job, and the panels being filled in with long single slabs, reaching from pier to pier.

There are steel bolts cast in the piers at every 18 in. projecting inwards, and the slabs are 18 in. high. The piers are set up at 4 ft. 6 in. centres and are anchored by the projecting reinforcement rods to the foundations, thus ensuring a very rigid form of construction.

These dimensions are suitable for ordinary house construction, but naturally in large buildings, such as factories, barracks, hotel, &c., the "Unit Bay" would be wider than 4 ft. 6 in.

All the slabs and door frames and window frames are secured to the piers by means of nuts on the projecting bolts, and as no mortar or grout is required at the joints this is a job requiring no skilled labour, and taking a very short time.

No rough-casting is needed on the outer surface if the slabs are properly made of concrete, or of a building substitute, such as "Woodcrete," which will give a perfectly smooth face and true edge. In a dwelling house there are two skins to the wall, each of 2-in. thickness, with a 5-in. air-space between them, making a 9-in. wall.

The inner face of the wall can be made flush by rebating the corners of the inner slabs and countersinking the nuts which secure them, the whole being then plastered over.

Or, if preferred, the nuts can be left showing on a capping which covers the vertical joints in the slabs, thus forming a panelled room. One advantage of this latter method is that, should it be desired to get at the air-space, where all the service pipes of the house (for gas, water, &c.) can be housed out of sight, or to shift the position of a window, or to add a fresh one, any of the slabs can be quickly removed by unscrewing a few nuts. If necessary the whole house can be dismantled, packed up and re-erected elsewhere at very little trouble or expense.

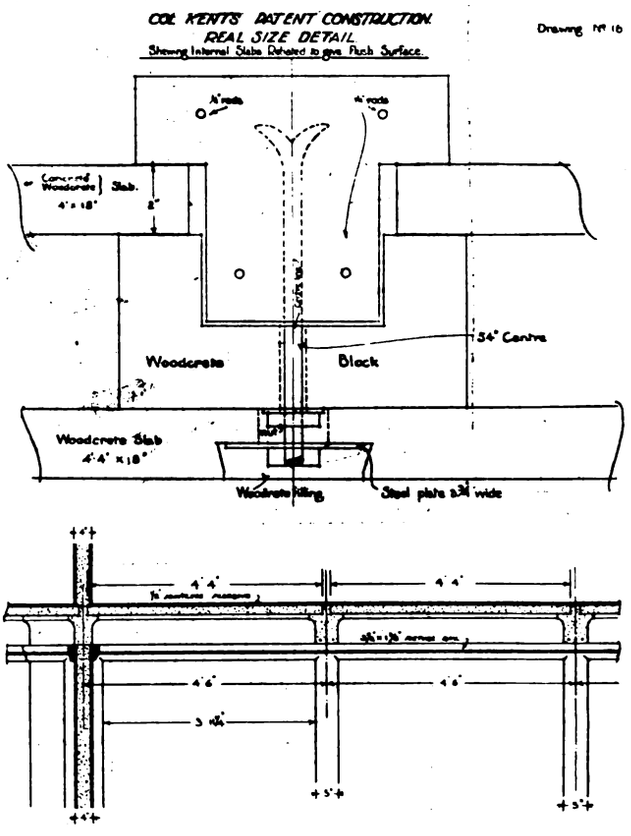
The weight of the upper floors is carried entirely on the piers, which have corbels cast on them to take the floor joists, so that no weight at all is carried on the slabs or window frames.

As the form of the piers can be varied in the moulds to any extent there need be no necessity for monotony in the appearance of these houses, and by rebating the outer slabs a flush surface can be obtained and the piers will disappear with rough casting.

A unit of 4 ft. 6 in. is extremely handy to work on when planning a house, and it allows of the maximum sized slabs that can be handled by two men, a slab occupying practically 1 cubic foot.

In "Woodcrete" these would weigh only about 85 lb., and a small office constructed of this material on the "Kent" system can be seen at Bateman's Concrete Works, Hyde Lane, Battersea, where the slabs are as good as the day they were put up in 1919.

By running a heated pipe along the bottom of the air-space the house is enveloped in a warm air jacket, and the expense of fireplaces and chimneys can be saved.



In fact, a whole village of "Kent" houses can be thus heated and supplied with constant hot water from a central refuse destructor, and a very large saving can be effected, not only in fuel consumption but in cleaning and labour.

In the tropics refrigerated air can be introduced into the air-space in the walls, and in a hospital this should prove very beneficial.

The cost per foot cube of houses constructed on the "Kent" system should not exceed 9d. to-day, and on large jobs, with repetition work, it should be well below this.

The first "Kent" house, of about 14,000 cubic feet, was erected at Havengore Creek, near Shoeburyness, by the War Office early in 1920, when prices were at their highest point.

The War Office report that under normal conditions four men, three of them unskilled labourers, could have erected it in four weeks at a cost of under 1s. a foot cube.

The occupants of the house say that it is very warm and dry compared to the brick houses they have lived in before, and, although it is constantly subjected to the blast of the heaviest guns, they have never noticed the house to shake.

The illustrations given here are self-explanatory, but any further information and detail plans can be obtained from Colonel H. V. Kent, C.B., M.I.C.E., consulting engineer, at 19 Hanover Square, W. 1, Tel., Mayfair 1918, together with particulars as regards building licences and royalties.

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Solution will protect gutters & drain pipes against the ravages of rust.

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Maximum speed of reversing, yet with complete safety and avoidance of blown fuses.

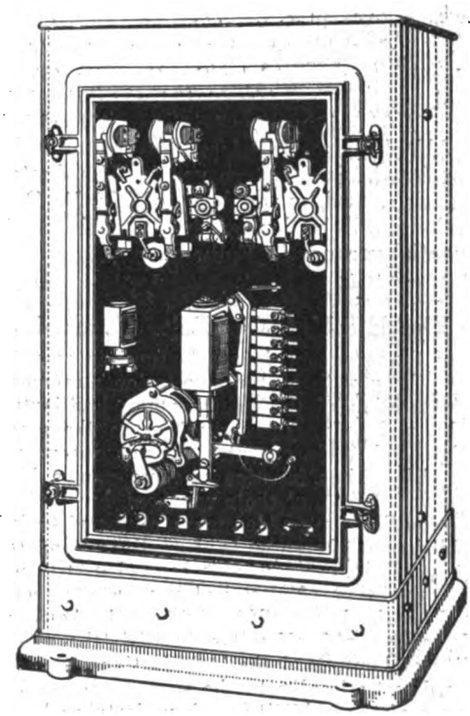
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L.C.C. Housing.

In the course of a tramway debate at this week's meeting of the London County Council, Colonel Fremantle, Chairman of the Housing Committee, stated that, although only forty houses had been completed on the Bellingham Estate, it was hoped that by the end of March 600 houses would be finished. His Committee anticipated that by December 1922 the authorised total of 2,000 houses would be completed and ready for occupation.

Following the transfer of the Housing Department to the Estates and Valuation Department, the Council passed a new standing order of special interest to other local authorities engaged upon housing schemes. The new order defines the duties of the Council's Valuer as follows:—

(i) To advise the Council as to the most suitable class of buildings to be erected, and generally on the whole question of dealing with the housing of the working classes.

(ii) To be responsible for the charge and control of all estates and buildings laid out and erected by the Council for the housing of the working classes, including all lettings, small repairs, and the collection of rents, subject to the supervision of the comptroller of the Council.

(iii) To advise as to the rents ruling in the neighbourhood of any particular scheme, and as to the amount which should be set apart annually for necessary repairs, and generally to prepare the estimates as to the financial effect after obtaining all necessary information from the various departments.

(iv) To search for and advise as to sites suitable for the erection of working-class dwellings.

(v) To prepare reports as to the future growth and movements of the working-class population.

(vi) To prepare reports and statistics as to the distribution of the persons employed in factories and workshops in the various trades.

(vii) To conduct investigations as to complaints with regard to the lack of cheap means of locomotion on railways and tramways, and to prepare statistics and evidence for inquiries under the Cheap Trains Act.

(viii) To prepare reports as to the provisions in regard to workmen's trains in new railways.

(ix) To prepare the return showing the amount of new working-class accommodation provided annually.

(x) To prepare the working-class statements required by the standing orders of Parliament to be deposited in connection with Bills.

(xi) To collect statistics of the number and occupations of, and the rents paid by, persons to be displaced by the demolition of dwellings inhabited by persons of the working class.

(xii) To prepare—(*a*) statistics showing the amount of vacant working-class accommodation in the neighbourhood of displacements proposed by the Council; (*b*) statements in regard thereto for transmission to the Ministry of Health; and (*c*) evidence for Ministry of Health inquiries.

Mr. Alfred Legge, District Surveyor for Fulham, has been appointed District Surveyor for Kensington, to fill the vacancy caused by the death of Mr. R. D. Hanson. Applications will be invited by advertisement for the consequential vacancy in Fulham.

The E.L.M.A. Publicity Campaign.

One of the most conspicuous features in recent electrical history is the growth of the association movement. Every important section of the industry now has its representative body, and to an increasing degree the machinery of production and trade operates through incorporated associations. The prime function of these groups is to protect the common interests of their members, but to this elementary purpose they have added many others of no less value—the establishment of standards of quality, the encouragement of joint research, the equitable control of trade relations, and the promotion of electrical progress.

The Electric Lamp Manufacturers' Association, for example, concerns itself not only with the efficiency and reliability of lamps and the stabilisation of prices, it acts also as a direct stimulus to the spread of electric lighting. The success of the publicity work undertaken by individual lamp firms led the association to attempt, two years ago, to supplement it by a combined effort to set forth, not the advantages of any particular lamp, but the broad advantages of electric light and of the lamps which bear the hallmark of the association. The results were so far promising, that the association has arranged for another national publicity campaign during the season upon which we have now entered.

This campaign has two phases. One is to arrest the attention of the world and his wife, and to create a livelier demand for electric light and E.L.M.A. lamps in the home, the office, the factory, and the public building. The second is to invite the active co-operation of the electrical trade. In pursuit of the first phase the newspaper and general press is being utilised; and for the second phase the trade and technical journals form the first line of approach, thus ensuring a continuous and manifold appeal to the general reader on behalf of electric light as afforded by E.L.M.A. lamps. The type of advertisement will, of course, be adapted to the class of user reached by each medium of publicity.

A well organised campaign on such an extensive scale must lead to a material increase in the demand for E.L.M.A. lamps. It is important, therefore, that the wholesale and retail electrical trade should be ready to satisfy that demand immediately it arises. In creating business for itself the Electric Lamp Manufacturers' Association creates it for every member of the lamp trade. This is the main argument for energetic co-operation by the wholesaler and retailer during the progress of the campaign. But publicity work such as the E.L.M.A. is undertaking has much more extensive results. Increased sales of lamps bring an augmented demand for reflectors and fittings, for numerous accessories, and for installation work in general. Every user of electric lamps is a potential buyer of other current-consuming appliances. Electric light, as has been well said, opens the door to "other uses." With the growth of electric light and its consequent demands there comes an increase in the output of electricity supply stations and a need for more generating plant, transformers, switchgear, cables, and electrical supplies in general. Thus, through the interdependence of the various branches of the electrical industry, the combined publicity enterprise of the E.L.M.A. will quicken the pulse of electrical business as a whole, and at a period, moreover, when encouragement is peculiarly welcome.

General.

At the last meeting of the Edinburgh Dean of Guild Court warrant was granted to the city to erect ninety tenement dwelling-houses at the Abercorn site in Willowbrae Road.

The Barnet Council have decided to build twenty-seven more houses on the Underhill estate, irrespective of the suspension of the Government's assisted scheme. The building will be carried out by direct labour, and unemployed will be given the work as far as possible.

Arrangements are being made for the R.I.B.A. Special War Examination—December 1921—to be held in London and Liverpool. The latter will be a Northern Centre for this particular Examination. Candidates should advise the Royal Institute as soon as possible as to whether they wish to present themselves in London or Liverpool.

The Housing Committee of the Glasgow Corporation have received intimation from the Scottish Board of Health that they cannot sanction the purchase of further brickworks. The Board intimate further that they are prepared to authorise the transfer from Blackhill scheme, which has been abandoned, of fifty-four houses to Drumoyne to complete that scheme, and 200 to Sandyhills, Shettleston; that they are allowed by the Treasury 1,500 houses additional to those already approved of, to be allocated among local authorities in Scotland, of which Glasgow would get a share as soon as the Board is in a position to make the allocation. The Director of Housing has reported on areas acquired for housing purposes which might be utilised for allotments, as follows: Newbank, London Road, 9.806 acres; Sandyhills, 2,069 acres; Kelvindale, 4,873 acres; and Merryflatts (South), 10,000 acres, making in all 26,748 acres.

CORRECTION.—A printer's error unfortunately crept into the advertisement of W. G. Tarrant, Ltd., the builders and contractors, which appeared so effectively on our back page last week. It is made to state that the firm have at Byfleet their joinery and mahogany (*sic*) works, as well as head office, saw mills, lead light shop, &c. The word "mahogany" should read as "masonry." We regret the mistake.

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Schools and their Future Development.

THE excellent paper read at the Institute by Mr. George Widdows on the heating and ventilation of schools is especially useful, as recent developments in school planning have been mainly determined by the two factors of ventilation and lighting. What is known as the "Derbyshire type" has now been generally adopted wherever the limits of sites and the accommodation to be placed on them have made it possible. The wide-spread, cross-ventilated plan has very nearly eliminated any other type owing to the very marked advantages made possible by its adoption. Some years ago we had the opportunity of inspecting more than a dozen schools designed by Mr. Widdows; and, predisposed as we were to regard them with favour, we were surprised to find how effectively the problem of ventilation had been surmounted. We visited schools directly after they had been used all day in summer weather, and discovered no trace of the "stuffiness" which had always seemed to be inseparable from the elementary school. And the result attained was proved to us to be quite compatible with marked economy of plan and independent of the necessity for elaborate and costly systems of ventilation. To these advantages may be added the very great one that the necessity for a stereotyped plan for a school building has been eliminated; each design—as Mr. Widdows' schools exemplify—is specially arranged to suit the site it occupies, and wearisome monotony is done away with. For a long series of years we considered the central-hall type of school to be the essential type to which all planners must conform, and our schools differed from one another in what were small and unessential particulars; but with the adoption of the later type a very large field of possibilities is opened up to the expert planner.

The change has come about because it has been at last thoroughly realised that the purity of the atmosphere is of secondary importance to its movement. This fact has been scientifically demonstrated in America, where a large building filled with people has been practically sealed up, but the air within it kept in motion by fans, with the result that, though when analysed by chemical means the air has been found to contain a high amount of impurity, little or no sense of discomfort has been produced among the audience. Dead or stagnant air, pure or impure, produces a sense of depression and inertia; the same air in circulation a feeling of stimulation; and, though these currents can be produced by many good mechanical means, it follows that such systems are costly, and chiefly appropriate for large halls and costly buildings. Mr. Widdows has found a system of windows on either side of the class-rooms, with hopper openings to deflect the cross-currents upward, to form the best, as well as the least expensive, method of ventilating the elementary school. In addition, such a plan as he adopts has a great advantage by the doubling of the areas along which windows may be placed, an advantage which amply compensates for the fact that lighting is both right- and left-handed. Another merit, although not one claimed by Mr. Widdows, seems to be that windows need not be reduced to an almost continuous glass screen—a necessity in the unilateral-lighted class-room which always seems a little unfortunate, for it is easy, in providing light, to give too much to those whose seats are next windows, for it can be clearly demonstrated that it is possible to over-light, as well as underlight, any building.

We doubt whether, from a point of view of planning, the schools which Mr. Widdows has designed will be improved upon. We have in the past been continually called upon to alter details of our arrangements to meet the wishes and aims of educational and medical experts, a course which has been a great factor in the continually increasing cost of the elementary school. It may be questioned whether many of the improvements which have been added to the cost of our schools have been worth what they have cost; but it can certainly not be claimed that they are necessities. A school should be hygienic, but it is surely not necessary that it should be treated as a hospital? But the medical enthusiast has often been in this a severe taskmaster. The length to which he will sometimes go was amusingly shown by the advocacy by a mental specialist of advantages of education for idiots, "even," he said, "if the idiot held his book upside down, the result might be beneficial." But the world in which we live can hardly, after the War, meet the cost of making a series of experiments in connection with the functions of education, and it is more likely that in the schools of the immediate future we shall have to eliminate requirements and luxuries than add to them. We shall be compelled by the *force majeure* of national finance to deduct, rather than to add: and this may apply not alone to the fittings and detail of the school, but to the sizes of its component class-rooms. We may grant that a reduction in the sizes of classes is intrinsically desirable, but it is obviously a great expense, both in school building and staffing. Is it, or is it not, one of the things we can do without? We mention this, as, although a new Education Act has been passed, it by no means follows that forces will not operate to prevent its being followed, in the same manner that the housing policy of the Government has been modified or scrapped.

We are not sure that this would be an unmixed evil should it come about, for it is possible that too perfect and complete a provision may be made by the State for its people; because when we say the State we know that the largest portion of the revenue is provided, not by the people, but by a small section of them, while a great readjustment of incomes has followed the War, and Labour's share of national income has been proportionately increased. It may be questioned, also, whether the average man appreciates or makes the best use of what is given him

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free, while he certainly values what he has to provide for himself.

Independence and effort may be largely eliminated by too much State help and control; and, if so, we have eliminated what is the most valuable factor in education.

But whether the factors we have enumerated will, or will not, have weight in the coming years, we are convinced that the main lines of the schools which Mr. Widdows has worked out will not be readily superseded, and may serve as useful models, whatever "trimmings" new Education Acts may force us to adopt; though there is no reason why, after recent experience, we should regard any Education Act as final, or any policy as having been decided. No transformation scene we ever witnessed at the conclusion of a pantomime provided such an amazingly changeable series of vistas as the proceedings of the mother of Parliaments.

Illustrations.

CLIFFORD'S INN, FLEET STREET. By Joseph Pike.
LEEDS GIRLS' HIGH SCHOOL. Messrs. Connon & Chorley, Architects.
WAYSIDE CROSS AT CRAWLEY DOWN, SUSSEX. H. P. Burke Downing, F.R.I.B.A., F.S.A., Architect.
CHELTENHAM COLLEGE MEMORIAL CLOISTERS. L. W. Barnard, F.R.I.B.A., Architect.

Notes and Comments.

Ulster's Public Buildings.

The First Commissioner has invited Mr. Ralph Knott, F.R.I.B.A., to design and execute the public offices in connection with the Civil Service of the Northern Irish Government. He has also invited Mr. Arnold Thornely, of the firm of Messrs. Briggs & Thornely, to execute the Parliament House. Both these architects has consented to undertake the work, which will be begun as soon as circumstances permit.

Although we should have been pleased to hear that an Irish architect had been selected to design the great public buildings which Ulster is to erect for her Parliament House and Public Services, we must admit that an excellent and appropriate decision has probably been made. Mr. Ralph Knott has had much experience of what is needed for the services of great departments in the design of the London County Hall, while Mr. Thornely has carried out a long series of buildings of the first importance in the North of England. Both are fortunate in being commissioned to carry out buildings in the erection of which there is likely to be little delay at a time when so many works are held up for financial and other reasons, and both are fortunate in having secured their positions without the toil and trouble involved in a competition.

Mr. Widdows' Schools.

Much as we admire the skill shown by Mr. Widdows in the design of the Derbyshire schools, we feel compelled to record our emphatic disagreement with him on the subject of style. He regrets that this country has not founded a school of modern architecture in the arts and crafts movement, but has allowed it to be appropriated by German designers. We, on the other hand, are delighted to get rid of it, "bag and baggage." He regrets that we should confine ourselves to the outworn shibboleths of tradition, while we regret that the hold on our national traditions was ever weakened. We see in the common desire to strengthen and follow tradition the best hopes for modern architecture. For tradition is not a dogma, but a convenient language in which we can express the wants of the present better than we can by adopting what we may describe as being the jargon underlying the expression of the arts and crafts movement or the "slang" of *l'art nouveau*. If there is anything "new" in either it seems to be a regrettable outbreak of a new form of insanity of which our fathers happily for themselves and for us knew nothing. The only way in which we think the schools of Mr. Widdows could be improved is the recasting of their design within the confines of the traditions which are the glory of English architecture and the heritage of a great country.

The "Manchester Guardian" and Architectural Criticism.

The "Manchester Guardian" complains that while current work is fully reproduced in architectural journals, their pages give no lead to the public as to views held by architects of their relative merits. To a certain extent this is true both here and in America, and there are reasons for the practice. In the first place, many criticisms we could make are obvious to our readers, who, unlike the general public, have inside training and knowledge. In the second, we are happy to say that we could seldom criticise a work of architecture without criticising the work of a friend, or, at any rate, one with whom we have friendly relations. In the third place, we are in a position to understand to the full the difficulties which any architect has to meet and surmount in the design of a building—difficulties which are fully apparent to us. If, however, like the "Manchester Guardian," our readers were synonymous with the general public, the conditions mentioned as limiting our action would not apply; we should have to explain and criticise *ab initio*, and should abandon one field of criticism for another. For all of which reasons we suggest that the "Manchester Guardian" has its proper field of operations, and we have ours; that both are good and both need cultivation. We should in this and other matters always be glad to answer any architectural conundrums stated by the daily Press.

Columbia Market.

On looking through the columns of the "Times" of the 16th inst. our attention was suddenly arrested by what appeared to be an illustration of a Continental cathedral in the Gothic manner. The inscription under stated it was Columbia Market, part of the Burdett-Coutts estate, which is to be sold next year. At first we thought that some strange mistake had been made, but on reading further we learn that in 1866 the late Baroness Burdett-Coutts obtained Parliamentary powers to create Columbia Market, which was built in a style "rich enough to be a cathedral," and at a cost of £200,000. It was not a success from a trading standpoint, but is described by our contemporary as an "architectural adornment of Bethnal Green." We question the adornment, and would rather describe it as a "folly," which reminds us of some others which are scattered over the length and breadth of the land. A very interesting book might be written on such "follies," a moderate computation of the cost of which would amount to a sum with which much useful work might be carried out. Should an architect who obtains one of these weird commissions take what the gods send him, or should he, in duty to the community, communicate with the authorities in the interests of the prevention of waste?

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The Old Arch of London Bridge.

Mr. W. D. Caröe appeals in the "Times" for the preservation of the discovered arch of Old London Bridge on account of the associations connected with it, yet admits that it would be a mistake to erect it elsewhere. As we understand that the arch occupies part of the building site of the great warehouse now being erected under the direction of Sir John Burnet, it is difficult to see how the arch can be preserved *in situ*; and, if not, the whole of Mr. Caröe's contention is destroyed. We do not see from drawings and photographs that the arch in itself is either architecturally admirable or very interesting, nor do we believe that, robbed of its old surroundings, it would be likely to arouse more than a little passing interest. On the other hand, if money is to be spent in connection with Old London Bridge, it might be better used in the making of a really fine large-scale model from the available material at our disposal, and such a model would be fittingly placed in the Guildhall.

St. Paul's Bridge.

The question of proceeding with the erection of St. Paul's Bridge has again been under discussion by a Committee of the Corporation, the reason for proceeding being the relief of unemployment. We very much doubt whether the bridge is needed, while it will be remembered by all interested that the scheme finally approved by the Corporation found little support among the architectural profession. Had it been decided to place the bridge axially with the transept of St. Paul's, a very magnificent architectural scheme might have resulted; as it is the question becomes a much more purely utilitarian one, and the bulk of opinion seems to be that there is no overwhelming necessity for another bridge over the river in the City, especially now Southwark Bridge has been reconstructed. It would in any case be the greatest of mistakes to put in hand a great undertaking of this sort, on which opinion is sharply in conflict, because of the prevalence of unemployment; but we expect that though the question will be debated, no actual work is likely to be put in hand for some time.

"Archibald Dawnay" Scholarship.

In accordance with the terms of the will of the late Sir Archibald Dawnay, the Royal Institute of British Architects offer annually, for competition between students of recognised schools, three scholarships, two of £50 per annum for two years (£100 in all) and one of £25 per annum for two years (£50 in all).

The scholarships are intended to foster the advanced study of construction, and the improvement generally of constructional methods and materials and their influence on design, and will be awarded for excellence in construction with the idea of assisting the winner in the further study of construction.

The competition is open to all students of recognised schools who have completed within the preceding year, or are about to complete, their full three years' course in architecture.

Successful competitors will be required to register as students of the R.I.B.A. before taking up the scholarship awarded.

In the first instance applications must be made through the principals of the various schools, who will nominate candidates and submit evidence of study on behalf of the student or students nominated, in the form of notebooks and work already done in the school. Such application should reach the Board by the end of June each year.

A final selection will be made by the Board of Architectural Education, who will base their selection largely on the actual school work of the candidates, but should it be necessary a limited number of applicants will be required to submit to a further test in the form of a written paper or otherwise as the Board may direct. (Provincial candidates will not be required to attend in London.)

The scholarships will be tenable at any recognised school selected by the successful candidates, who will be required to devote their time particularly to the object of the scholarship, specified above.

In all cases the second year of the scholarship will be subject to approval or revision by the Board.

Applications for renewal of scholarships must be made by the students direct to the Board not later than the end of June in each year, and be accompanied by evidence of study during the past year.

The scholarships are open to all subjects of Britain or the British Dominions, but are tenable only in the British Isles.

Institute of Scottish Architects.

A meeting of the Council of the Institute of Scottish Architects was held at 117 George Street, Edinburgh, on the 17th inst. Mr. A. N. Paterson, president, in the chair. It was arranged that a representative from the Institute should attend a meeting between the Royal Institute Committee and the Ministry of Health in London in support of the position in Scotland in connection with the fees of architects on abandoned work. A report was submitted as to further developments in connection with the application for a Royal Charter. The approval of the Royal Institute of British Architects was intimated and their support promised, and the secretary was instructed to proceed with the lodging of the petition as now approved. A report from the Education Committee was submitted to the Council. The proposals involved the enforcement of a higher standard of admission to the study of architecture, an approach to the universities with a view to establishing a degree in architecture, and other matters tending to the advancement of the training of young architects in Scotland. The report was approved by the Council, and it was remitted to a committee to proceed on the lines indicated. Six new members were admitted. On the report of the Competitions Committee arrangements were made by which public competitions in Scotland, the conditions of which were found to be unsatisfactory, should be barred to members of the Institute.

Forthcoming Events.

Friday, November 25.—Royal Institute of British Architects. Public lecture at 9 Conduit Street, W., by Mr. Donn Barber, A.I.A., and Mr. Bertram G. Goodhue, A.I.A., on "American Architecture." 5 p.m.

Monday, November 28.—Royal Institute of British Architects. Special general meeting at 9 Conduit Street, W., to consider resolutions with reference to amending the Ministry of Health's Memoranda Nos. 51 (D) and 52. 8 p.m.

Architectural Association. Meeting at 34-35 Bedford Square, W.C. 1. Paper by Mr. Nigel Playfair entitled "Stage Design." 7.30 p.m.

Tuesday, November 29.—Royal Institute of British Architects. Public lecture by Mr. Raymond Unwin, F.R.I.B.A., entitled "American Architecture and Town Planning." 6 p.m.

Wednesday, November 30.—Royal Society of Arts. Meeting at John Street, Adelphi, W.C. Paper by Mr. Noel Heaton, B.Sc., entitled "The Preservation of Stone." 4.30 p.m.

— The Blacksmiths' Company. Public lecture at Carpenters' Hall, London Wall, E.C., by Sir W. H. Ellis entitled "The Modern Development of the Blacksmith's Art." 4 p.m.

The Board of Architectural Education have made arrangements for holding a special students' evening in connection with the Exhibition of American Architecture on Friday, December 2, at 8 p.m. Several prominent architects who are familiar with recent American work will be present, and they will give students information on points of interest. An exceptional opportunity will thus be afforded students of gaining an insight into the trend of thought and methods of their brother architects across the Atlantic. Students from the architectural schools and others are cordially invited to be present. No cards of admission are required to the R.I.B.A. Galleries.

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London Art Galleries.

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WHAT I have heard described as the present epidemic of London exhibitions still continues. Last week saw the opening of the Second Annual Exhibition of the Society of Wood Engravers at the Chenil Gallery in Chelsea, the water-colour paintings of the Scottish Highlands by A. T. Nowell at the Cork Street Gallery, the paintings of game and other birds by Philip Rickman at the Greatorex Galleries, the humorous display of "Our Ancestors (Past, Present, and Future)" at the Gieves Art Gallery, and the eleventh exhibition of the Goupil Gallery Salon at the Goupil Gallery in Regent Street. The exhibition of paintings by Leon de Smet and of water colours by Mrs. Julia Creamer at the Burlington Gallery was a little earlier in date of opening, but is by no means one of the least interesting.

Leon de Smet has exhibited before in this Gallery, but the present display is a revelation of the powers of this Belgian artist, especially in two directions—as a magnificent draughtsman and a fine colourist. His powers as a draughtsman are fully displayed in the series of figures of Ostend fishermen and fishwives, full of character and superb in quality: these give the impression at first sight of charcoal drawings, but are as a matter of fact, I understand, put in with very soft Conti crayon on a large sheet of Michelet or cartoon, and the whole is then dipped into a bath of oil, both to preserve it and to give it its richness of quality. I noted among these figures the "Old Fisherwoman," the "Guardian of the Port," and "Old Fisherman," all hailing from Ostend; but, apart from these drawings, de Smet shows himself in his paintings here as a great colourist. His flower studies are excellent, but in his landscapes or seascapes he excels in pearly-grey effects, often of morning or sunset—"Early Morning, Ostend," "Grey Day, Ostend," "La Plage," "Quai des Grands Augustins, Paris"; and in figure work he reaches, to my mind, his highest point in the study called "Toilet." The whole scene here is a rich harmony of colour, in which the flowers and background take part; and in this half-draped figure of a woman he recalls the Venetian Tiepolo in the warm gold-brown flesh tones seen against cool white. Upstairs the flower paintings and figure studies by Mrs. Julia Creamer, mostly in water-colour, are by no means to be overlooked. This artist treats her water-colour boldly, put in, I should imagine, in some cases on the wet paper, for on the nose of one of her figures the wash has got a little out of hand; but she, too, has a fine perception of colour, both in her figures here and in such flower paintings as "Flowers," "Tulips," and "Still Life"—this last in oil.

Mr. Philip Rickman has already exhibited with success at the Greatorex Galleries, and his work there has been noticed by me at that time. He has specialised in bird life, a most fascinating subject, and his present display is devoted mainly to game birds, with some few small birds such as goldfinches and a beautifully finished study of "Cole-tits." We see here pheasants in the snow, partridges warming themselves on "A Sunny Bank," mallard and teal and pintail, ptarmigan, capercaillie and grouse—all the feather folk of moor or stubble, not forgetting the exquisite blue plumage of the rare kingfisher, and studied with the closest attention to detail, portrayed with faithful accuracy. To bird lovers this exhibition will be a delight, and perhaps a revelation on some points; if it has a fault it is that the pictorial and atmospheric effect, which finds a place in such a scene as "A Cold Day—Mallard," is put sometimes second to the beautiful detail of colour and plumage which we enjoy as a record.

Mr. A. T. Nowell, R.I., R.P., is well known as a figure and portrait painter, and in fact many of my readers may have admired his excellent portrait of H.M. the King in the present exhibition at Burlington House; but I believe that the series of water-colour paintings of Highland scenery now on view at Messrs. Bromhead and Cutts' Gallery in Cork Street, W., is the first that he has shown in this field of his art. Yet landscape was his early love, and perhaps, like Mr. Sargent, he comes back to it with a sigh of relief from the strain and trammels of portrait painting. Among the best here are the "Snowstorm passing over Quinag, Sutherland," with its brilliant treatment of cloud forms; "Loch Rannoch in Autumn," with the foliage of the silver birches just turning to quivering flashes of gold; "The First Snows on Quinag," a remarkable piece of water-colour achievement; and "Mountain Mist rising," a transient effect, which had to be caught in early morning and carried through within the half hour or less. In many of these paintings the grand outlines of the Sutherland mountains, like crouching lions, form the background, along with "radiant moors splashed with colour, running streams, rolling rocky country," such as that which forms the foreground in the "Snows on Quinag." Last week also Mr. Tom Robertson was showing his summer work in the Highlands in his studio at 19 Mecklenburgh Square, though he had less to show than last year through the weather conditions in North Britain, which seem to have been the reverse of what we enjoyed in the south. Two charming little oil studies, "Hills of Morvan" and "At Ballachulish," belong to this summer's work, while "Golden Autumn" dates from the year previous: yet earlier are this artist's delightful French paintings, the "Somme Estuary" and the "Fête des Enfants," one of those nocturnes in which he excels.

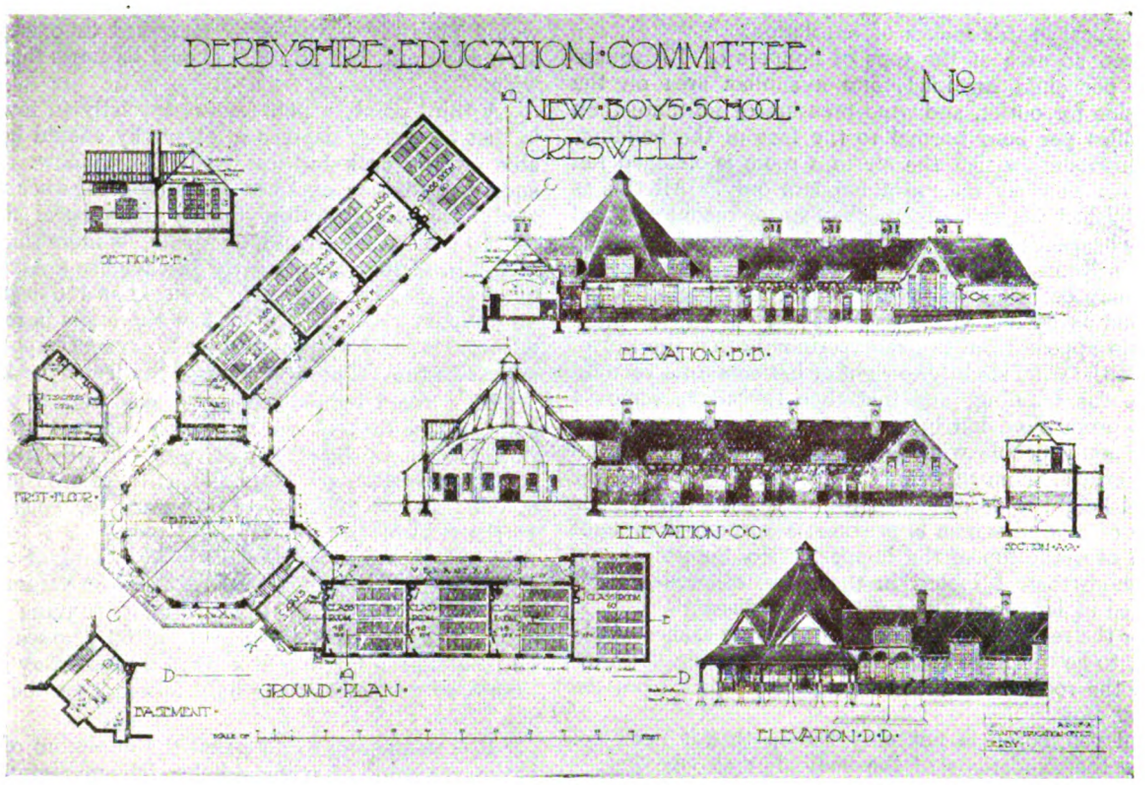
The Second Annual Exhibition of the Society of Wood Engravers, opened last week at the Chenil Gallery, marks an advance on that of last autumn, which was noticed fully in these columns. Mr. Campbell Dodgson, in his "Foreword," remarks that the different engravers are so various in their aims and methods that no one can blame the process of wood engraving, as they practise it, for being monotonous or limited; and he instances the flat tone, broken by rare and sensitive lines of white, of certain pieces by Mr. Gordon Craig here, the balance of decided black and white in Mr. Ethelbert White's or Mr. Hagreen's landscapes, and the atmospheric effect which Mr. Sydney Lee achieves by hatching and breaking up of white lines. The white line is, in fact, used very effectively by Gordon Craig in such a subject as his "Eve," with its fine sense of outline, a subject which reappears (for our first parent seems a favourite here) in the strongly drawn upright figure by Gwendolen Raverat, an artist whose work I noted in the last exhibition. Mr. Greenwood is, I believe, a new member, and comes forward this year with "John Atherton's Mill," and a still better example in the old timbered houses of "Aber Conwy"; Mr. Nightingale in his "Echo" shows effective contrast of light and shade and good composition.

In these dull times, when taxes weigh us down and the political atmosphere at home and abroad is very far from reassuring, the Gieves Gallery has evidently come to the conclusion that we need cheering (dare I say "bucking") up; and with that laudable object has prepared for us its own little joke in the Loan Collection of Portraits of "Our Ancestors." "Happy is the man," says the Preface by Professor Wiseley, author of "Paint and Pedigree" "—with 'Ancestors!' In times of trouble—stress of mind or body—one leans on one's ancestors. In times of financial difficulties one sells 'em." This last recommendation, which reminds us of the inimitable scene in the Picture Room of Charles Surface, will be scarcely applicable to the present collection, though we find characters well in the public eye—such as Baron Mess-Pott, Mrs. In Baulk—an authoress widely read, report adds, even by her husband—Baron Norgrippa, posing as Napoleon, Don El-Rico Gaddes, and Lord George, after a conference, remarking that "the world went very well then"—among the sitters. The catalogue is not the least amusing part of the joke.

S. B.

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The Royal Institute of British Architects.



The second general meeting (ordinary) of the session was held on Monday, November 21, at 9 Conduit Street, W. Mr. Paul Waterhouse, President, occupied the chair.

Mr. Arthur Keen announced the death of the following members: Frank Gatley Briggs (F. 1900); George McLean Ford (A. 1892, F. 1908); Edward Goldie (F. 1904); Frederick William Hugh Hunt (A. 1868, F. 1881); Frederick Oscar Lechmere-Oertel (A. 1888, F. 1901); William Henry Littlewood (A. 1882, F. 1888); James Milne Monro (F. 1906); Joseph Owen (F. 1905); William Tillott Barlow (A. 1894); James Alfred Buckley-Jones (A. 1899); Reginald St. Aubyn Roumieu (A. 1877); G. A. Cox (Licentiate); Ernest William Dyson (Licentiate); Edward William Keech (Licentiate); Flint Browne (Licentiate); John Parker (F. 1902); Frederick Bargman (Licentiate); John Wreghitt Connon (F. 1881); Professor Virgil Nagy, late Honorary Corresponding Member of Budapest.

The President said he had two pleasant announcements to make. The Institute enjoyed the good fortune to have among its guests that night two American colleagues whose names were well known—Mr. Bertram Goodhue and Mr. Donn Barber. Secondly, the Institute had received, through the generosity of Mr. William Walcot and his publishers, a complete set of framed etchings of his classical compositions. Those beautiful compositions of the cities and life of ancient Rome, Athens, and Egypt were familiar to all.

Mr. G. H. Widdows, F.R.I.B.A., architect to the Derbyshire Education Authority, then read a paper entitled

School Design.

In a very brief survey of the past, the lecturer pointed out that from the dawn of Christianity up to the Renaissance emphasis was laid on spiritual training. The next phase emphasised intellectual training. In the last few years the emphasis appears to have been laid on the physical side; and architects have been concerned more with this, in endeavouring to express in our buildings a solution of the problems of heating, lighting, and ventilation.

The impetus given to school hygiene was undoubtedly brought about by the passing of the 1902 Act, which brought into being our large educational authorities. The credit for drawing attention to the unsatisfactory planning of schools must be given to Doctor George Reid, of Staffordshire. He, with Mr. Hutchings, the Staffordshire authority's architect, was the first to break down the bad tradition of the central hall. Derbyshire may claim to run a close second, and before long nearly all other authorities took up the running.

In the old central-hall type of school one apartment ventilated into another, and the free circulation of pure air was impossible. This type of plan was developed with the idea of making the head teacher into a kind of glorified policeman.

With the abolition of the central hall and the acceptance of the principle of through ventilation one of the greatest revolutions in planning in any kind of building took place, with the result that in 1914, when school-building practically stopped, our English schools had obtained a distinctive character which was known the world over; and this character was brought about by adopting common-sense methods in connection with ventilation, lighting and heating.

If these three factors are mastered, then we have a sound beginning; but to lay down hard-and-fast laws as to the shape of the school, the arrangement of its rooms, and the kind of apartments, is to stifle initiative, to deaden thought and hinder progress. No two schools ought to be alike.

Ventilation.

In the matter of ventilation we owe a great deal to Professor Leonard Hill, who has entirely exploded old theories. Ventilation is the first essential, and bad ventilation will try both body and brain more quickly than bad lighting or bad heating.

Professor Hill bids us see that the old theory that the primary need of ventilation was to supply oxygen to the lungs is not true, and that the primary need is to produce skin activity by the carrying away of the heat and moisture of the body.

The second chief thing to bear in mind is that the best form of ventilation is not obtained by bringing in air near the bottom of a room and taking it out through the middle of a ceiling, but is best obtained, and in the simplest manner, by causing air to pass across the room by the agency of wind pressure.

The theory that there were poisons in expired air is found not to be true; and it is also found that the human

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body can only absorb a given quantity of carbon-dioxide, and that any excess is not absorbed by the system but thrown off; thus the physical aspect takes the place of the chemical in this matter of ventilation.

Given an area at the tops of hoppers of 10 square inches per child for inlet, and a similar area on the other side for outlet, and wind pressure of no more than four miles per hour normal to the face of the building, experiments show that the air in a room is changed ten times per hour by means of hoppers only. All this is accomplished without any mechanism or machinery and in the cheapest possible way, because the ventilator made use of is Nature's own—viz., the wind.

It may be asked as to what effect is produced when the wind is dead end-on, and not normal to the sides. It would appear from smoke experiments that the movement of the wind slightly to right or left sets up a vacuum outside the building, and that then the air is removed not by propulsion, but by suction.

So many people who design and make hoppers fail at the crucial moment. As the hopper falls inward the vertical height is decreased, and unless something in the nature of a wind screen is provided a horizontal draught passes over the top of the hopper. No hopper should open more than 4 inches in the clear, otherwise air is admitted in large quantities with much discomfort.

For the rest of the window, centre-hung sashes would appear to be the most convenient, the air being deflected across the room in a similar direction to that from the hopper.

Bad ventilation is not only bad in that it does not remove the exudations of the body, but also because it allows bacteria to accumulate, and thereby become more dangerous in attack. Yet another point to be remembered is that the stuffy smell in badly ventilated schools is due to the fact that children are not taught to use sanitary paper. The stench in these rooms is not, as some people imagine, from stale sweat.

Lighting.

Lighting can, of course, be by windows on one, two, or three sides of a room; and while scientists agree that unilateral lighting is best, nevertheless it has not been shown that other forms of lighting are harmful. A light from the left from above the head is doubtless the most restful.

Where unilateral lighting is adopted one point to be observed is that a line forming an angle of 30 degrees with the top of the desk farthest from the window should, when projected, pass through the glass area of the window. Another point is that the glass area in rooms up to 20 or 21 feet in width should be one-fifth of the floor area. If this width is exceeded then the glass area would probably have to be increased to one-fourth or even one-third, but no room should be more than 25 feet wide.

A third point, which refers especially to town areas, is that 50 square degrees of clear sky should be observable on the desk farthest from the window. This 50 square degrees is obtained by adding together the horizontal angles and multiplying by the vertical angle.

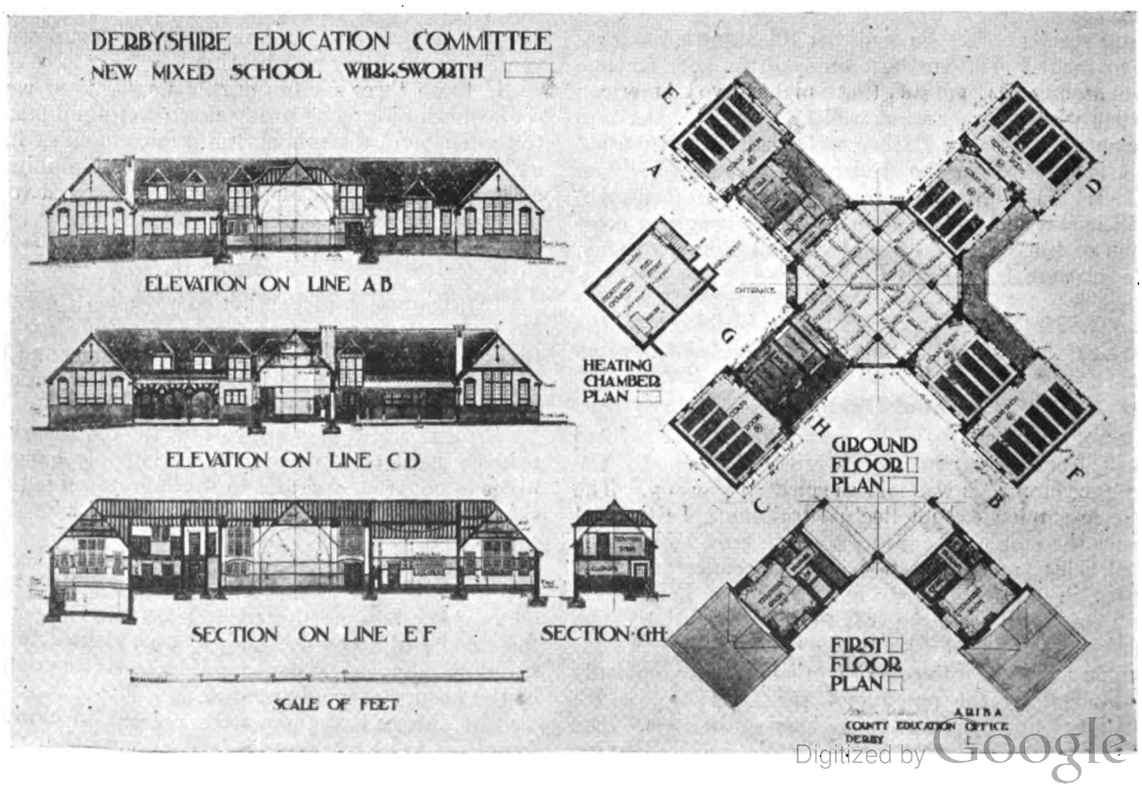
No classrooms should, as a rule, be more than 21 feet in width. In a wide room the teacher has great difficulty in covering so large an angle of vision as 116 degrees. In an ordinary classroom of 20 feet the angle is reduced to 83 degrees; and what applies to the teacher applies more or less to the children looking at the blackboard.

In a room lighted from one side with a glass area equal to one-fifth of the floor area and without obstruction it is found that 2 per cent. of the sill light reaches a point 20 feet away from the sill. This is more than double what is regarded as necessary for good lighting. In the case of two experimental rooms at North Wingfield, where the light is obtained by means of a skylight and the ventilation by means of doors on verandahs, the light is an inclined continuous light running the full length of each room at an angle of 60 degrees with the horizontal; the lighting at a point 20 feet away is no less than 5.18 per cent. of the light falling upon the window-sill.

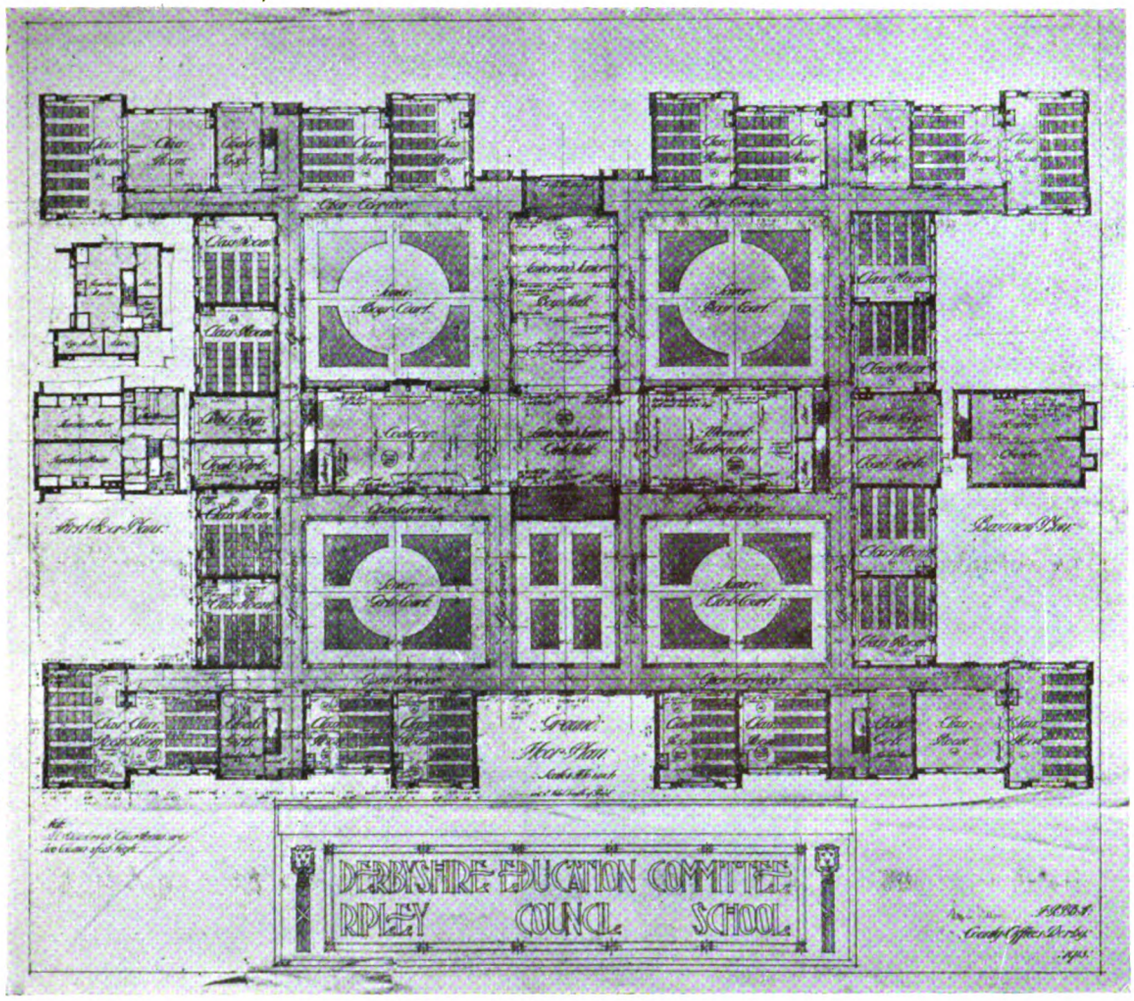
It is interesting to note that the minimum of daylight is the maximum of artificial light. The maximum amount of artificial light falling upon paper or light material is three foot-candles, except in the case of dressmaking and manual work, when it should be four foot-candles. For class-room purposes it is found best to have the lights 8 feet 3 inches from the floor, and three candle-power for every 5 square feet of floor space will give approximately three foot-candles at the desk level.

Heating.

There are various ways of heating schools. Experience seems to show that low-pressure hot water is the most serviceable in a school. One of the things that became noticeable with the introduction of better ventilation was the inadequacy of the heating apparatus to be found in our schools. These were usually put in with a guarantee by the engineer that a temperature of sixty degrees would be maintained when the outside air was



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freezing, but to obtain this every door and window had to be kept shut.

On the assumption that the air should be changed not less than ten times per hour, it will be found that an area of about 35 square feet of heating surface to every 1,000 feet of cubic contents will be required—or, in other words, the heating surface required will be one-half of the floor area.

A point to be remembered in connection with heating is that the boiler should always be 50 per cent. above its catalogue efficiency, and that the heating chamber should be capacious so as to enable a large store of fuel to be laid in.

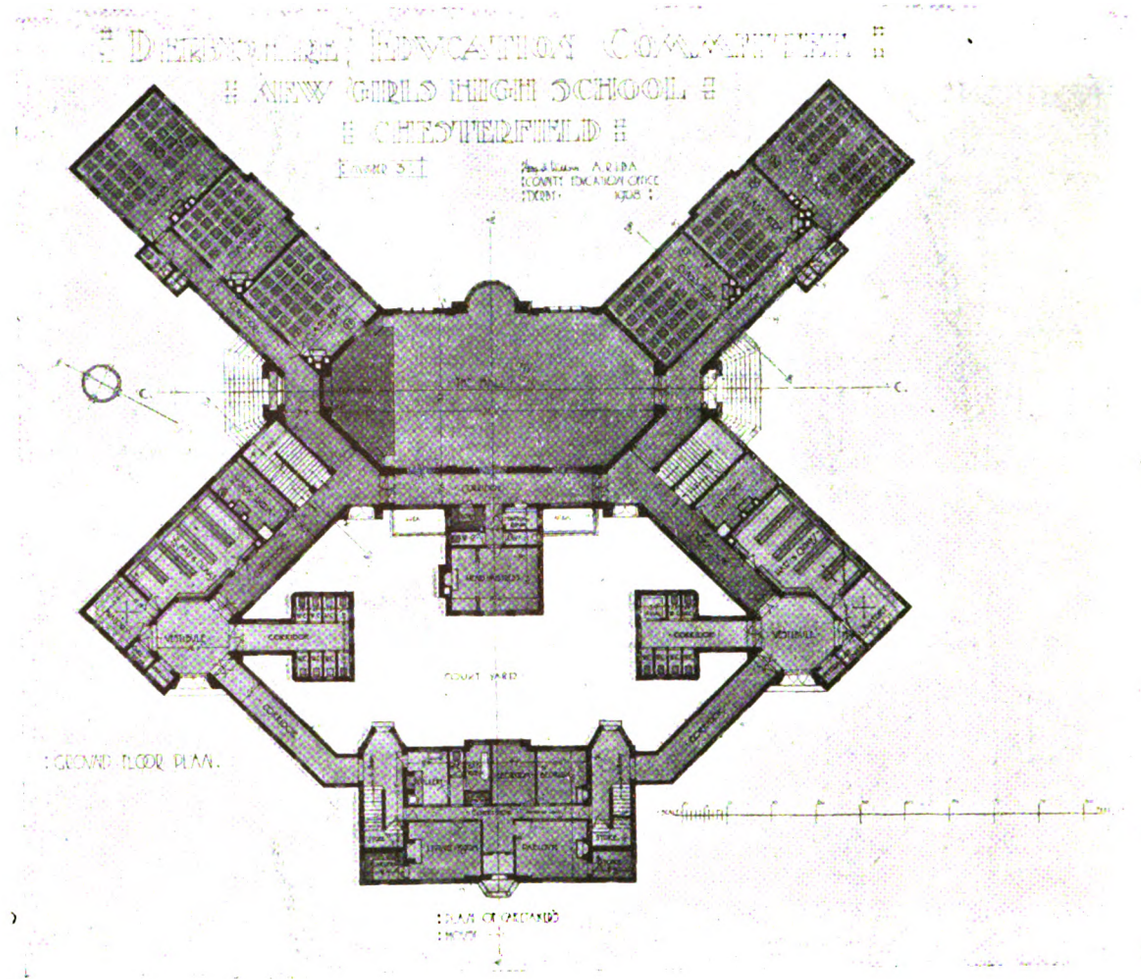
At North Wingfield the heating is by means of steam pipes under a concrete floor composed of slabs 2½ inches thick. Owing to the heating pipes being out of sight the rooms have a much neater appearance, and this method of heating is doubtless the best. By keeping the feet warm the blood circulates, and the admission of cool air striking the skin and filling the lungs acts as a tonic. No great heat is required on the floor surface. A temperature of seventy-five degrees is more than ample; and this, of course, is much less than the heat which reaches one's feet when sitting in front of a fire.

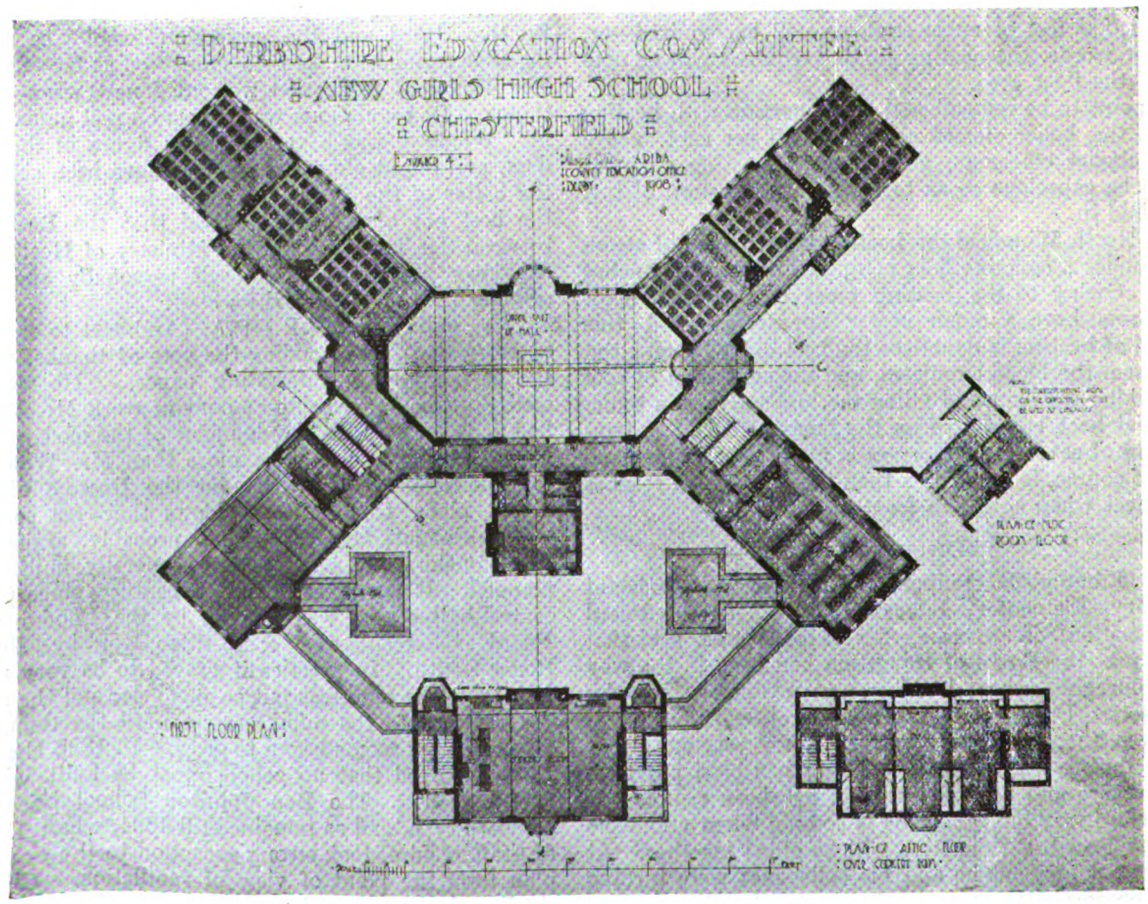
Discussion.

Sir Edmund B. Phipps, C.B. (Principal Assistant Secretary, Elementary Education Branch of the Board of Education), in proposing a vote of thanks, said that in the past the Board of Education had been in the way of encouraging school building and making work for architects. Unfortunately things had altered since 1914. However, there must be schools. Every year and every month during which school building has been put back the pressure and need for schools has been rising. So that before very long the time is coming when architects and the Board of Education will be allied together. At the present moment he and his colleagues were turning down proposals for actually building schools and were going back on their previous decisions. That was a distasteful task, but they had to do what they were told. When times changed the Board and the architects were going to be allied in a more real way than ever before. To-day they had got to see that the rates and taxes were used just so far as they could be used. The money was going to be badly needed in the immediate future. So the Board and the profession would be working together trying to make their money go as far as possible. The Board of Education welcomed new ways of doing things. Its regulations were based on real human needs. Mr. Widdows was a very familiar figure in their corridors, and might almost be said to have been able to get the better of the Board, or rather he knew how to get the best out of it. He realised that the Board stood between the Treasury and the Ministry of Health. Mr. Widdows had endeared himself personally and professionally to the Board and its staff.

Mr. Felix Clay, F.R.I.B.A. (Architect to the Board of Education), in seconding the vote of thanks, spoke of the extraordinarily interesting paper. He wanted to testify to the remarkable amount of work Mr. Widdows had done towards the development of the modern school. No one architect had done more than Mr. Widdows in that direction. When they at the Board's office received plans from Mr. Widdows they got something to think about, talk about, and, probably, argue about. But somehow his schools were generally built as first planned. It was exactly half a century since the first central-hall school was put up by the London School Board as a result of a competition won by Professor Roger Smith. In practice it proved to be very unsatisfactory. The plan was put on one side, and the authorities reverted to the pupil system until the demand for separate class-rooms began to grow. In 1882 the School Board decreed that no school must be built without a central hall. The Ben Johnson School became the standard type, and so remained till 1904, when Dr. Reid, of Staffordshire, took strong exception to the central hall plan from the point of view of ventilation. Of course, the Board were astonished at the proposed new plan, and they argued a long time about it; but eventually it was built. It proved an unqualified success. The neighbouring

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CLIFFORD'S INN
FLEET STREET.

Joseph Pike
1921

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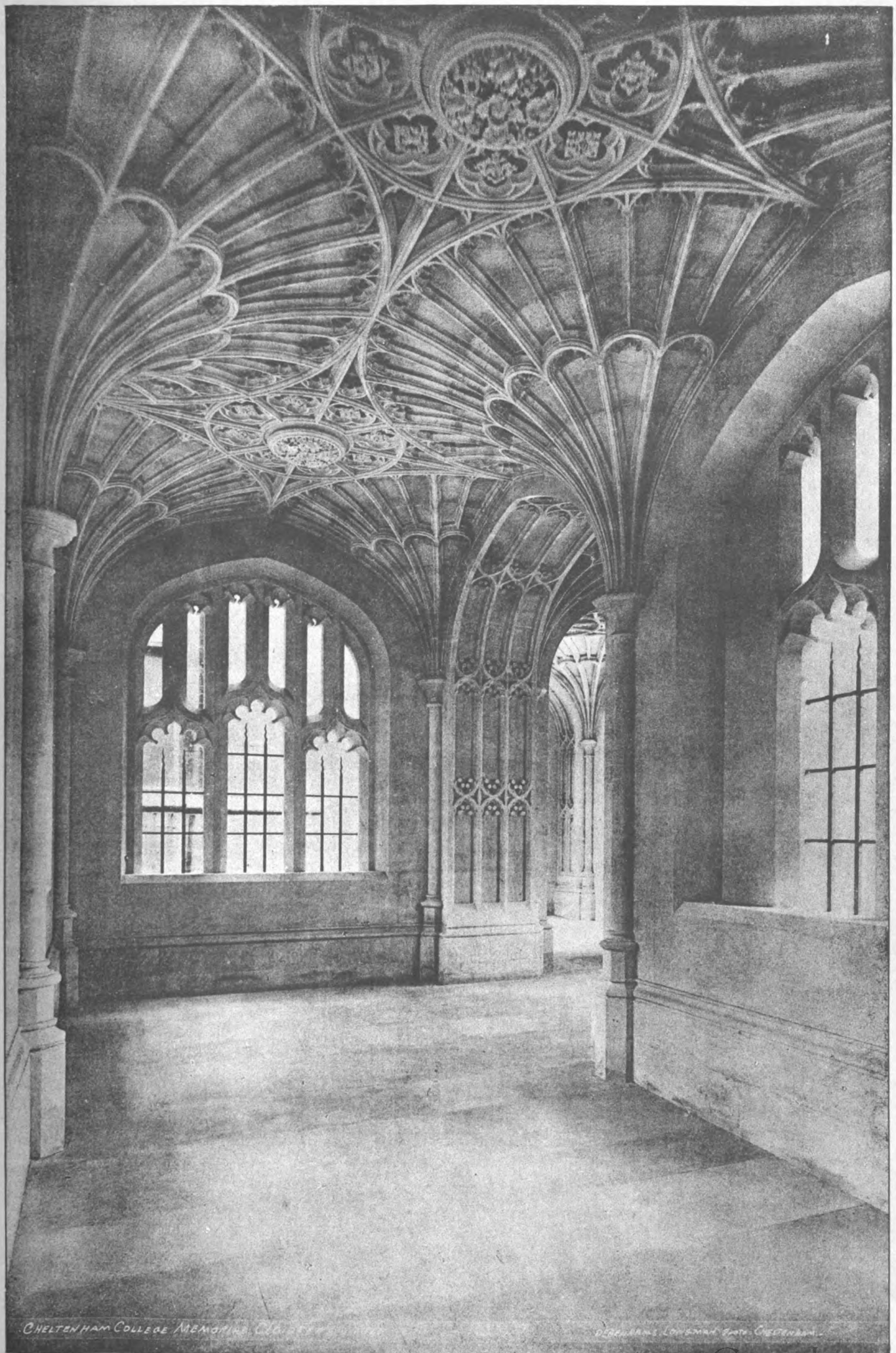


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WAYSIDE CROSS AT CRAWLEY DOWN, SUSSEX.

H. P. BURKE DOWNING, F.R.I.B.A., F.S.A., ARCHITECT.

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CHELTENHAM COLLEGE MEMORIAL

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HIGH SCHOOL.

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county of Derby started to develop the idea, and in a short time the central hall type became obsolete. Personally he was convinced that ventilation was the absolutely fundamental point of planning, and that the system of ventilation had to be decided before starting on the plan at all. Professor Leonard Hill had shown the chemical composition of the air in a crowded room had practically nothing to do with the ill effects. Experts had now come to the conclusion that the best form of ventilation was the good old-fashioned window. The engineer produced what they wanted to avoid—namely, a perfectly equable temperature. There was now a variety of plans arranged to catch the maximum amount of sun and air. He doubted if they would ever go back.

Mr. H. W. Wills, F.R.I.B.A., said that some six or seven years ago when visiting Derbyshire he had undergone some of the hardest work he had ever undergone in his life. He then went over about fifteen of Mr. Widdows' schools. Interesting and satisfactory as he previously thought them before seeing them in actual being, he was very much surprised to find how perfectly suited they were for their purpose. On going into those schools after the close of the official day he could not tell from the smell they had been occupied. The variety of plan struck him as a very great improvement both in appearance and convenience on what had gone before. In that room the Institute had often discussed the question of official architecture. After he (the speaker) had been round the schools in Derbyshire he came to the conclusion that at any rate in this instance there was very little in it, and that the only thing the County Council had done was to shorten the process of selecting a design by competition.

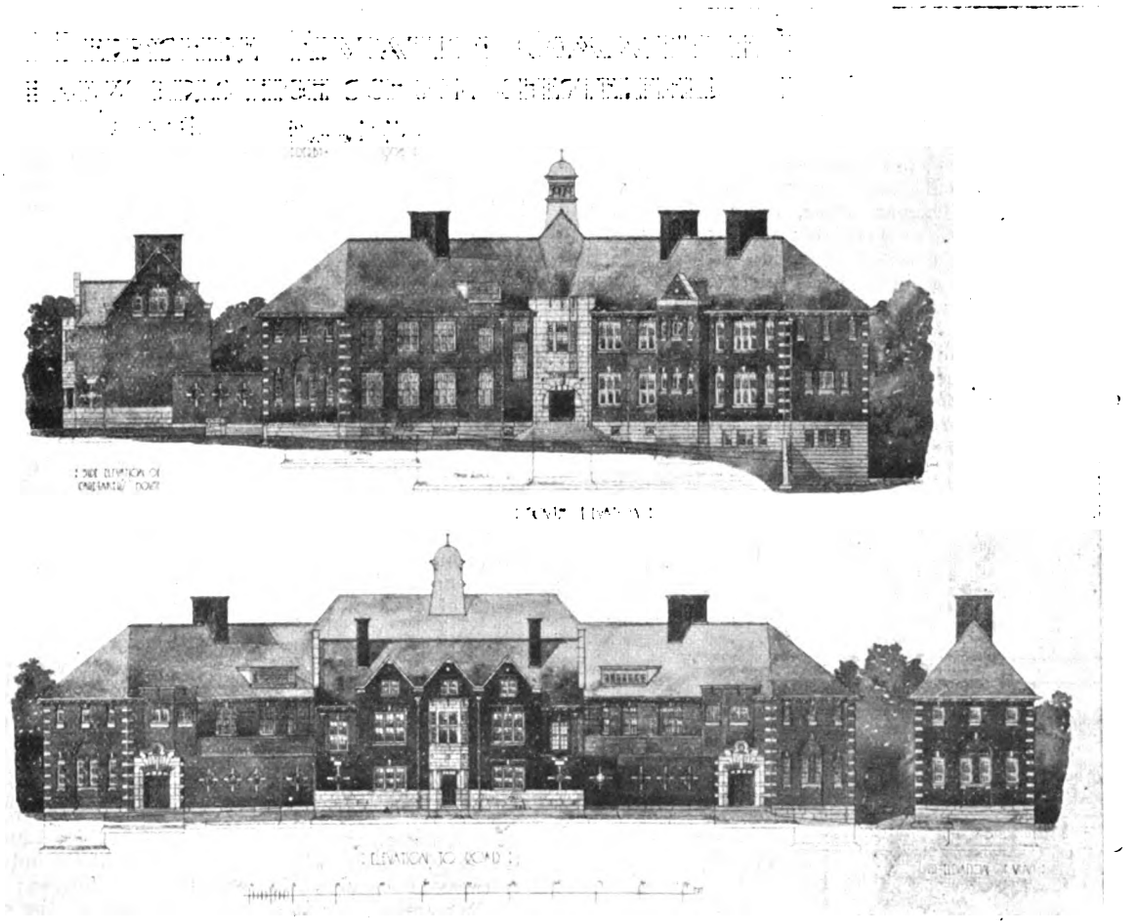
Mr. G. Gilbert Scott, A.R.A., in speaking on a point raised by Mr. Widdows, explained that at Liverpool Cathedral he was heating the floor by means of channels formed of concrete. That system permitted the use of marble or stone for flooring without the danger of people complaining of the cold to their feet. So they could obtain a decorative and monumental effect without its disadvantages. By so doing they were, of course, reverting to the Roman idea.

Mr. W. A. Pite, F.R.I.B.A., pointed out that the rules which governed schools governed hospitals. What Mr. Widdows had told them that night could most usefully be applied to the treatment of the sick.

The President, in putting the vote of thanks, also remarked that the lecturer had taught them many things which were applicable to other buildings than schools. The paper was most excellent and gave food for thought.

The vote of thanks was then passed with acclamation.

Mr. Widdows, in alluding to his relations with the Board of Education, advised his professional hearers never to write letters but to go and see them. The letters might be written, if they liked, afterwards. His belief was that floor heating was coming to stay. Everything seemed in favour of the substitution of chairs and movable tables in the place of the old type of desk. While architects were, as now, held up from building there was an excellent opportunity to turn attention to the fitting up of schools. Nor was there any reason why they should not turn their attention to old schools. Old buildings could be made far better by the introduction of simple devices.



At the conclusion of the meeting it was announced that a special general meeting will be held on Monday, November 28, 1921, at 8 p.m., for the purpose of considering the following resolutions which will be moved from the chair:—

1. That while re-affirming the objections to Memoranda Nos. 51 (D) and 52, which led to the resolution of July 4, 1921, this meeting recognises the bona-fides of the Ministry in putting forward Memoranda Nos. 51 (D) and 52 under the impression that the R.I.B.A. had agreed thereto.

2. That the Ministry of Health be requested to amend the terms of the Memoranda in question.

3. That three members be appointed with full powers to agree with the Ministry upon a scale for abandoned work within limits prescribed by the Practice Standing Committee in consultation with interested architects.

A Business General Meeting will also be held on Monday, December 5, for the election of members.

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Correspondence.

The Site of the Globe Theatre.

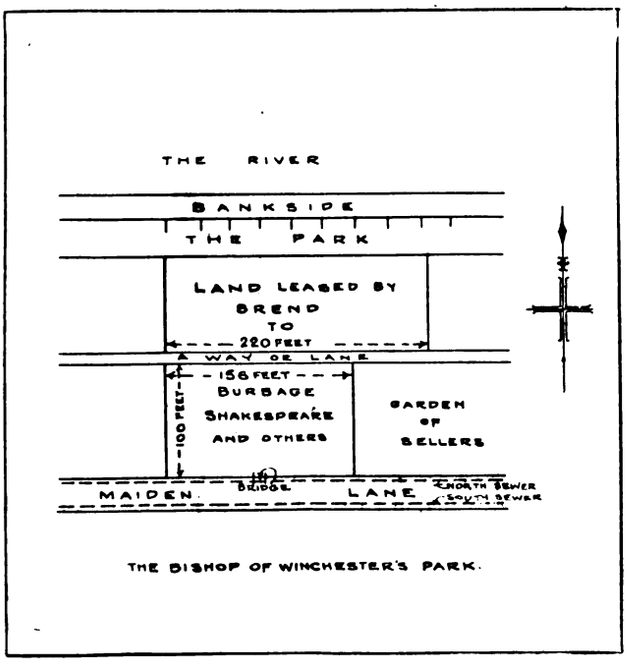
To the Editor of THE ARCHITECT.

SIR,—The L.C.C. have now issued their report on the site of the Globe Playhouse of Shakespeare, which they find was situated on the south side of Maiden Lane, now Park Street, Southwark. Without attempting to criticise their report at length, it may be stated shortly that they have arrived at their conclusion, primarily, on the assumption of an error, in a document called the lease-transcript of 1616, wherein the boundaries of the Globe site are recounted. The L.C.C. consider that the attorney in preparing this document transposed N. for S. and E. for W. This topsy-turvy assumption is made on quite insufficient grounds. The document clearly states that the Globe site abutted on Maiden Lane towards the south and a piece of land called the "Park" on the north.

The only "Park" the L.C.C. recognise is the Lord Bishop of Winchester's Park, which lay to the south of Maiden Lane; therefore, it is argued that the leased ground should have been stated as abutting upon the "Park" to the south instead of to the north.

It is dangerous to assume an error in a contemporary document, and in this case it is particularly unfortunate for the L.C.C. to have done so, because there are other contemporary documents, which support the accuracy of the lease-transcript of 1616. It is hardly likely that these contemporary documents, drawn up independently of each other, should all make the same mistake of orientation.

The lease-transcript 1616 is a recital of the boundaries of the land as mentioned in the original lease from Nicholas Brend to Cuthbert and Richard Burbage, Wm. Shakespeare, Augustin Phillips, Thomas Pope, John Hemyngs, and William Kemp. If there were this topsy-turvy error in the orientation of the demised land, is it conceivable that none of these eight men noticed the mistake? It must be assumed that they understood and knew what they were doing when they signed the original lease, and if there had been such a glaring and improbable error it would have been detected. This alone is strong presumptive evidence of the accuracy of the document, but the evidence of other contemporary documents raises this presumptive evidence into evidence of a positive character. To appreciate this, it



should be realised that Maiden Lane ran E. and W. and that there were two sewers or ditches, one on the north side of the lane and one on the south side.

The owners or occupiers of land on the north side of the lane, and therefore abutting upon the northern sewer, were called upon from time to time to repair their sewer, and no doubt a like responsibility fell on the owners or occupiers of the land on the south side of the road in respect to the southern sewer.

In the minute of the Surrey and Kent Sewers Commission of February 14, 1605-6, it appears that "It is ordered that Burbidge and John Hemmings and others the owners of the playhouse called the Globe in Maid Lane shall . . . pull up and take cleanse out the sewer the props or posts which stand under theire bridge on the north side of Maid Lane."

If the L.C.C. is right in their assumption that the Globe land was on the south side of Maiden Lane, then this minute of the Surrey and Kent Sewers Commission was irregular, for the minute would then have referred to the sewer on the south side and not on the north side of the lane.

Again, in the Surrey and Kent Sewers Commission on December 5, 1595 (about four years before the Globe was built), made the following order: "William Sellors and all the landholders or their tenants abutting upon the Common Sewer leadinge from Sellors gardeine to the beare gardeine to cast, cleanse, &c.," the sewer. It is agreed by all parties that the Bear Garden was on the north of Maiden Lane; therefore the sewer referred to must have been the northern of the two sewers in Maiden Lane, and, as the sewer ran between Sellors' garden and the Bear Garden, Sellors must have fronted also upon this northern sewer. In the lease-transcript of 1616 Sellors is mentioned as adjoining the Globe site on the east.

As Sellers' was on the north of Maiden Lane and he also adjoined the Globe site, then the Globe site must have been on the north side of Maiden Lane, and it could not have been on the south, unless this minute, like the previous one of the Surrey and Kent Sewers Commission, was wrongly issued.

Here are three contemporary documents, the lease-transcript 1616 and the two minutes of the Surrey and Kent Sewers Commission, all in accord with each other, and all show that the Globe was on the northern side of Maiden Lane.

The contemporary evidence is the best evidence, and when this evidence all hangs together quite naturally and logically it certainly is more convincing than the topsy-turvy finding of the L.C.C. Committee, sitting some 300 years after the Globe Playhouse was pulled down.

The documentary evidence is not the whole evidence; there is the long series of map-views, starting with Visscher's View of London, 1616, and followed by Merian's View, c. 1638; Vanden Hoeye's View, c. 1640; Profil de la Ville de Londre, by Picart, c. 1643; F. de Wits' View, c. 1640-50; and Hollar's View, 1647. The two latter views were probably made during the life of the Globe and published three or four years afterwards.

Every one of these map-views show the Globe Theatre, and, in order that there should be no mistake, in each instance the Globe is distinguished by the name being written above it, or, if there is no name, then there is an index number which refers to the Globe.

In not a single instance is the Globe shown to be to the south of Maiden Lane, and there is not a single view, so far as I know, which ever places it otherwise than in a position north of Maiden Lane.

It must be accepted that those who saw the theatre and drew it amidst its surroundings could not all have made the same mistake and put the theatre to the north of Maiden Lane when it should have been to the south of that road, according to the topsy-turvy view of the L.C.C.

The vital evidence of these views is sufficiently convincing by itself on the broad question as to whether the theatre was on the north or south of Maiden Lane; but the L.C.C. sweeps the whole series aside, and the only reference to them is contained in a footnote as follows: "In view of the unreliability in matters of detail of the early map-views of London, the evidence on both sides is limited to that of a documentary character."

In view of the evidence, the verdict of the L.C.C. cannot be accepted as the final word as to the site of the Globe Playhouse of Shakespeare.—Yours, &c.,

GEORGE HUBBARD, F.R.I.B.A.

112 Fenchurch Street, E.C. 3.

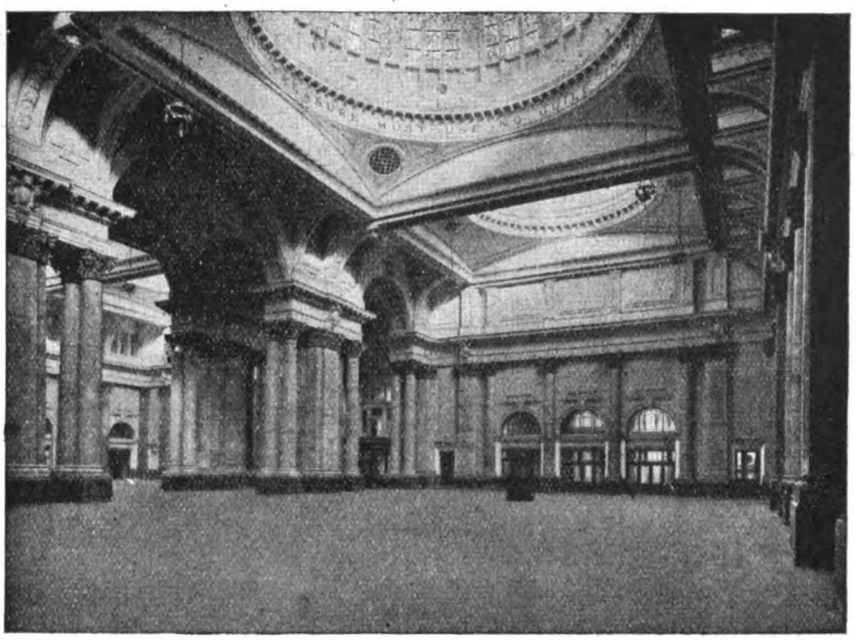
November 7, 1921.

P.S.—By reference to the accompanying plan the letter may be more readily understood.

The Scarborough War Memorial Committee have decided that the memorial should take the form of a monument of suitable stone or metal, of a design to be approved by the committee. The total amount promised on the two appeals was £3,301 18s., and of this amount £2,070 10s. had been received.

Applicants desirous of qualifying for registration as probationers R.I.B.A. must in future produce three and not more than four sheets of drawings showing an elementary knowledge of geometrical, perspective *and* freehand drawing instead of examples of geometrical *or* perspective and free-hand drawing.

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The Royal Exchange, Manchester.
Architects: Messrs. Bradshaw, Gass & Hope.
Concrete Contractors: Messrs. Stuart's Granolithic Co. Ltd.
Concrete Engineers: The Trussed Concrete Steel Co. Ltd.

SERVICE IS THE TEST.

Enquiries are often made into the relative merits of the various systems of reinforced concrete construction. But Architects know that it is not a question of system: it is a question of the service and organisation that is offered in connection with the system.

Systems vary only in detail, and these differences have been proved to affect the final structure in no great degree.

Systems must be sound: there are by-laws to enforce this. But the engineering service rendered with the system is the varying factor: there are no by-laws which control service.

There is a distinct advantage in employing firms of specialists having a large staff of engineers and an organisation framed to render the highest type of service to the Architect.

The Trussed Concrete Steel Co. Ltd.

125 Truscon House, Cranley Gardens, S.W. 7.

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"The Architect" Fifty Years Ago.

NOVEMBER 25, 1871.

ANOTHER TEMPTING COMPETITION.

THE architectural profession, and especially its younger and more aspiring members, are doubtless only too familiar with the tricks and quibbles which so greatly dishonour the system of "competition." Under the plea of selecting merit in every variety of professional scramble, we have advertisements thrown out as more or less tempting baits, the acceptance of which, on the one hand, proves only too eloquently a needy and impoverished condition in the profession; and, on the other, illustrates very significantly the esteem and repute in which that profession is held by public bodies, and, indeed, by the great bulk of the population. It might be interesting, though it would no doubt be useless, to have a return made of the value in time and money which is annually expended in this country on architectural competition, and for which there is not the slightest return—but a constant dead loss—to the pockets and the repute of the profession. Protests, we fear, are too stale to be of much avail against this system, which dooms an ill-paid profession to the exceptional ignominy of being invited to scramble for "prizes," so called, with the certainty that even the *successful* candidate is most frequently a loser by the venture. Certainly one may safely predict this result for a competition which has just been announced by the Corporation of Hanley, in Staffordshire. The municipal wisdom of that metropolis of the Potteries has evidently conceived a high ideal of the British architect and his art, for they actually promise to the successful author of a design for their public baths the munificent sum of 30*l.*! while the ordinary amount which the humblest architect in town or country would be entitled and expected to charge on their proposed expenditure would be 150*l.* Thirty pounds, however, is to be the price of the architect who is so fortunate as to achieve victory in the artistic lists at Hanley, and his fame is to be enhanced by the prescribed condition that his design is to be "carried out by the borough surveyor"! It is difficult indeed to understand why the profession of the architect should be thus insulted even by public bodies and through advertisements inserted in its own organs. The Corporation of Hanley may possibly comprise some men of business instinct and practical common sense. Why cannot these select an architect at once of sufficient capacity and character for the work they want done, and pay him on the same market terms as they would expect for their own wares? If the ordinary 5 per cent. of an architect's commission were held to be extravagant as a professional charge by men on whose education and in whose practice much time and money has to be expended, one might not wonder at this resort to a chance of getting an architect's work "on the cheap." But it is notorious to all educated men that the usual rate of an architect's commission is quite unremunerative (except for the very, very few who get work by the million) at the present rate of living and the exigencies of a professional status. In the case of all such speculations as the Hanley Corporation are trying on, there is, however, one consolation—somewhat of a revengeful nature it may be—for the architect. We all know that these too clever adventurers in competition find at last that the "prize" which, in their wisdom, they light upon, turns out in the end very much like Moses Primrose's gross of green spectacles. Corporations and Committees who think thus to make a good architectural bargain, in the shape of sound work and a competent architect, only secure at best young lads or needy practitioners, to whom even the remote chance of winning 30*l.* may be a temptation.

Labour-saving and Housing Schemes.

At the provincial meeting of the Surveyors' Institution held at Norwich, an interesting paper descriptive of "Labour-Saving Machinery and Housing Schemes in Norwich," was read by Mr. Arthur E. Collins, M.Inst.C.E., the city engineer. From it we give the following extracts:—

When sewering operations were started on the Mile Cross Housing Estate the soil was found suitable for the operations of the "Mangnall" earth thrust borer, made by the Hydraulic Engineering Company, Chester, and a plant was obtained on hire and royalty. With this considerable lengths of pipe sewers (two side by side on the separate system) were constructed without opening trenches in the usual way, the ground openings being limited to pits averaging sixty feet apart, and five feet by three feet by the depth of sewer, from one of which the thrusting tool was forced, by hydraulic pressure generated by a petrol engine, to the next pit. The accuracy with which the thruster found its mark was extraordinary till one got used to it. Unfortunately at Mile Cross Estate the area of suitable loamy soil was soon covered, when sands and flinty gravels were entered which did not suit the machine. My experience of this apparatus is such that, when laying pipes up to, say, twelve inches exterior diameter, cables, &c., in clay, loamy clay, or any ground of reasonable plasticity, I shall use it. After the first few trials I found no difficulty in making good joints, using ordinary socketed stoneware pipes. Had I been able to continue the use here, I should have made a specially arranged joint to enable larger pipes to be laid in a given hole than is possible with ordinary sockets.

For deep sewer trenches in building estates or in any roads not full of water, gas, electric, telegraph, telephone, compressed air, sewer, surface water, and other pipes and constructions I have found a trench "Blondin" of great service. Generally it consists of two trucks running on a portable rail laid on each side of the site of trench at about eight feet gauge. Each truck supports a trestle about twenty feet high and a box to weight with earth, &c., to about ten tons; a wire rope joins the tops of the trestles. The trucks and trestles are the length of the "Blondin" or cableway apart (in Norwich 150 feet). On one truck an electric motor and winding barrels together with what I may call the connections for a stern anchorage are placed, and on the other a winch to wind the whole machine forward along the rails when it has completed one section of trench and is required for the next. The object of this machine is to place an empty skip in the bottom of the trench beside a navvy and immediately to lift the one he has just filled and transfer it, without handling, to back-fill trench or, if surplus, into a cart. It enables the work in a street or elsewhere to be confined to its own width, say ten feet over all. With its aid, open cutting is cheaper at fifteen feet deep than hand labour at nine feet; at this depth it is also cheaper than tunnelling, which without the machine does not begin to pay as against open cutting at depths less than twelve feet.

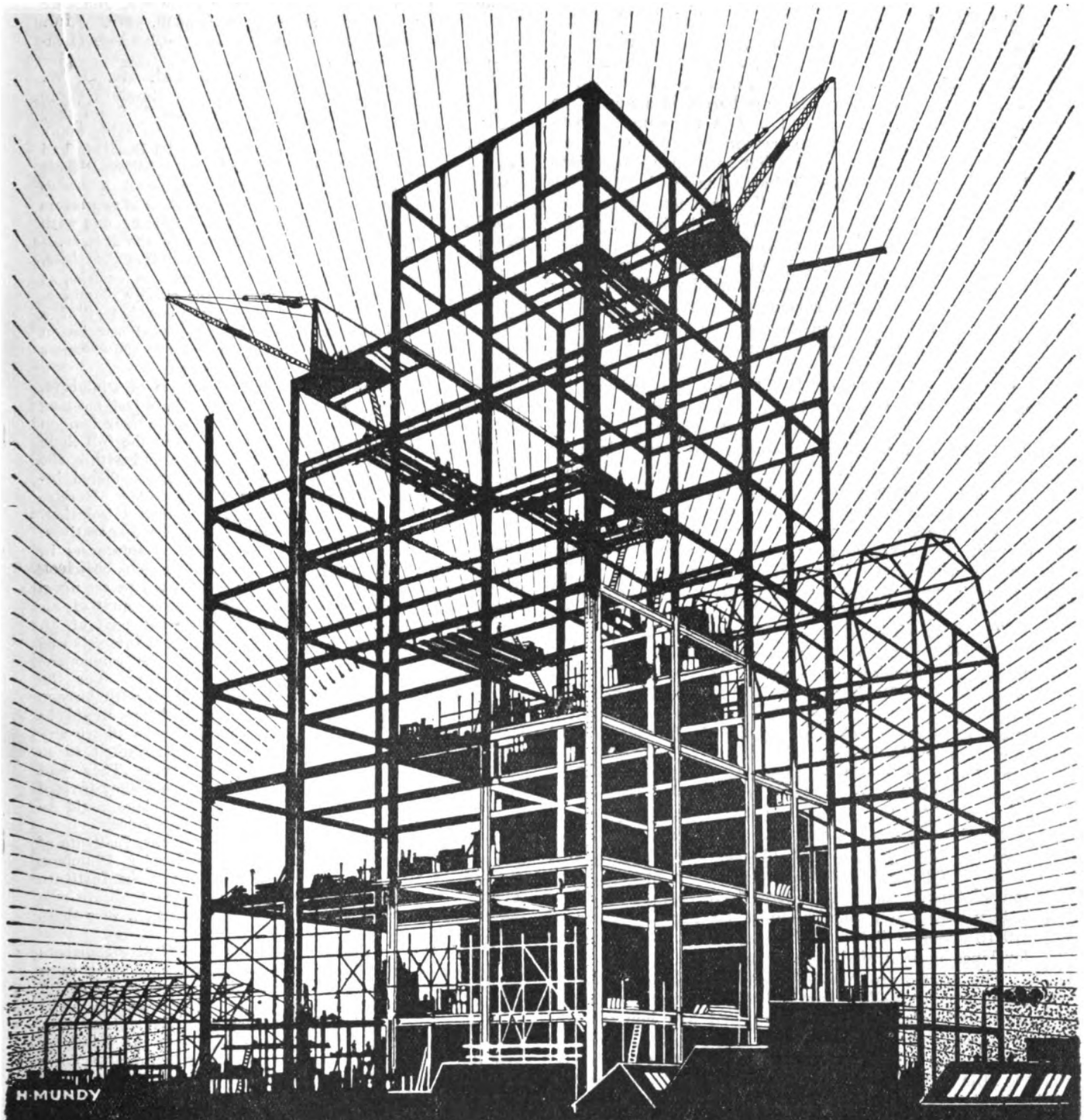
To get trenches properly consolidated a petrol-driven rammer is used which does the work very thoroughly, but is not quite suitable in clay by reason of adhesion to the rammer. This machine has been found useful for ramming road patches, &c.

For pumping very wet trenches one of the best pumps known to me is the "Woodford" centrifugal trench pump, which with its vertical driving shaft is built into a square, angle-iron frame, forming the bottom of a series of frames each with its section of vertical pipe and driving shaft, and terminating in a top section containing a driving pulley or an electric motor. By coupling together the requisite number of sections, the combined frame, with its self-contained pump, shafting, pipes and driving pulley, is made of the necessary length to suit the depth of excavation, and the machine can be dropped into place and set to work with great convenience and expedition.

A "Roturbo" pump has been similarly fitted up in the Works Department.

By reason of the shortage of men for exterior plastering, the cement gun has had to be introduced on housing work with exceedingly satisfactory results. It consists of a steel upper cone with a valve at its bottom resting on an upper tank, also with a valve at its bottom separating it from the lower tank, at the bottom of which is a feed wheel rotating in a horizontal plane, the periphery of which consists of a series of pockets each of which is presented in sequence to the outlet nozzle leading to the delivery hose. A charge of ready-mixed plastering

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material is placed in the upper cone, air under pressure in the upper tank is discharged by means of a cock, and the valve of the upper cone is opened permitting the charge to fall into the upper tank. Air is admitted to the upper tank, the valve at its bottom is opened and the plastering material falls into the lower tank, where the feed wheel carries it in charges, regulated by the size of the pockets, to the outlet nozzle. Immediately over the pocket, which at the instant is opposite the discharge, is a nozzle so arranged as to form a shield and at the same time to inject air, supplementing the pressure within the chamber and forcing the charge out of that particular pocket into the hose and along it to a discharge nozzle which may be 200 or 300 feet distant. A smaller hose conveying water under pressure is also carried to the discharge nozzle. This nozzle is so arranged as to deliver a spray of water on to the plastering material as it issues therefrom; consequently, the cement is not damped until the instant it is being deposited upon the surface being plastered, with the result that there is no disturbance of the initial set. Plastering materials are forced on to the surface at high pressure and velocity, with the result that an extremely dense coating is constructed. I have found that with ordinary Portland cement the plastering becomes so hard in two days after deposit that it withstands the blow of the hammer as perfectly as similar plastering done by hand does after a week. The rapidity of the work is such that the exteriors of two ordinary cottages can be plastered per day where the work is straightforward.

A pneumatic painting and limewashing machine has been in use in Norwich for many years, and where the work is large enough it is very advantageous. It proved its worth when the cow-houses at the sewage farm were especially cleansed and disinfected some years since.

The Norwich housing scheme comprises four estates: The Angel Estate, covering 16 acres, with a total of 144 houses, all of which are in course of erection; the Mile Cross Estate of 102 acres, with 500 houses, 160 of which are being built; the Earlham Estate, with a total of 147 acres, 76 of which are being developed—600 houses will be erected on the 76 acres (four being in course of erection), but it is intended to provide 1,006 on the whole estate when fully developed; and the Harford Estate, 151 acres, with 600 houses, none of which, however, have at present been begun. On the four estates a total of seven acres has been thrown into old roads for widening purposes, 77.63 acres have been devoted to playing fields and allotments, and 41.21 acres have been allocated to factory sites and public buildings, leaving a net area of 219.16 acres available for houses, not counting the undeveloped portion of the Earlham Estate.

The houses are mostly of the parlour and three bedrooms type, a small proportion having four bedrooms, and are built in blocks of two, three, and four houses each. The average cost of those on the Angel Estate, which are being built by direct labour, is £900; and that of those on the Mile Cross Estate, under construction by contract in concrete and steel, is also expected to be £900.

For the Angel Estate houses, the following analysis of cost shows that labour accounted for 44.7 per cent., materials for 42.7 per cent., the balance being made up of management and other overhead charges.

ANGEL ESTATE HOUSES.

Block "L."

Analysis of Cost.

	£	Percentage.
Labour (artisans and labourers) ...	396	44.7
Salaries of manager, timekeeper, general and costing clerks, foreman, &c. ...	23	2.6
Internal cartage and internal haulage ...	27	3.0
Miscellaneous charges, building water, hire of workshops, electric installation, external haulage, including steam wagons, &c.	48	5.4
Materials	378	42.7
Plant charges	14	1.6
	£886	100.0

Associated Master Plumbers (London).

A complimentary dinner was given at the Connaught Rooms on the 16th inst. by the Associated Master Plumbers (London) in honour of the Institute of Plumbers, who were holding their quarterly meeting in London. Mr. J. C. Smith, President of the Associated Master Plumbers (London), occupied the chair.

After the loyal toasts had been honoured, Mr. G. W. Bennett, ex-president, Associated Master Plumbers (London), proposed "The Institute of Plumbers." Since they last met in London about two years ago, he said, many changes had taken place. The position of the Institute had had to be very carefully considered. He believed their interests were being well guarded. He hoped a *modus operandi* would be found with other associations of employers in mutual help and honourable and just dealing one with another, and without the lesser being lost in the greater.

Mr. Bertram I. Hellyer, President, Institute of Plumbers, in his response said the Institute needed now as much as at any time in its career the support of the master plumbers. Personally, he could not understand the psychology of a man who enjoyed all the benefits that organised association can give him without subscribing in any way to the expenses incurred. Their subscription was not heavy.

Mr. R. H. Rowell, ex-president, Institute of Plumbers, who also responded, declared that since their last meeting they had travelled far, and had grown to know their London friends very much better and to appreciate to the full their valuable work. The policy of the Institute had within the recent period undergone some changes, as was rendered inevitable by the tendency of modern labour policy. Heretofore it had been one which savoured of splendid isolation. But that had been exploded by the action of the operatives. The whole demand was for combinations of employers in any composite industry such as theirs. No serious objection could be taken to the efforts of the operatives to set up a very strong combination. But surely employers had an equivalent right on their side. They formed part of an industry in which co-ordination of the different interests was essential. Without collaboration among the component parts, there could not be a complete structure. For the Institute of Plumbers did not seek absorption with anyone else or to absorb anyone else. All their hopes would be wrecked if there was a desire of any section to absorb any other section. He could not believe anyone wanted to go back to the parochial settlement of wages. They had reached a critical period in their history, and they invited the whole-hearted support of all parties. There could be no association without some sacrifice on both sides.

Mr. J. P. Cox, M.B.E., J.P., ex-President, Institute of Plumbers, proposed "The Associated Master Plumbers (London)," a body which had, he said, given the Institute a link with the hub of the universe. The Institute was about to go forward with leaps and bounds in a very short time.

Mr. J. C. Smith, President Associated Master Plumbers (London), replied that they tried to do their best in a humble and quiet way. They certainly embraced the cream of the plumbing trade in London. Their numbers might very easily be multiplied, but they were out for quality. They were heart and soul for the objects of the Institute, and did their utmost to uphold its principles in every shape and form. In the near future they were meeting very important bodies on matters which concerned them all as plumbers. Their principal object was to raise the status of the Institute as far as they could. Three years ago, when they were persuaded to join the Institute, they were twenty strong; now they were more than double that number. So, though they might be babies, they were strong, kicking ones.

Mr. Charles Thomerson, ex-President Associated Master Plumbers (London), in proposing "The Visitors," said many kind things about the technical Press.

Replies were given by Mr. W. F. Thacker and Mr. C. Braithwaite.

The toast of "The Chairman" was given by Mr. A. A. Butterworth, vice-President Institute of Plumbers.

In the intervals between the speeches an excellent musical programme was given.

The Edinburgh Town Council last week approved generally a recommendation by the Streets and Buildings Committee that a new sewer be constructed to take the place of the Craigentinny Burn, extending from the North British railway at Lochend Meadows to the existing culvert under Seafield Road at an estimated cost of £54,000.

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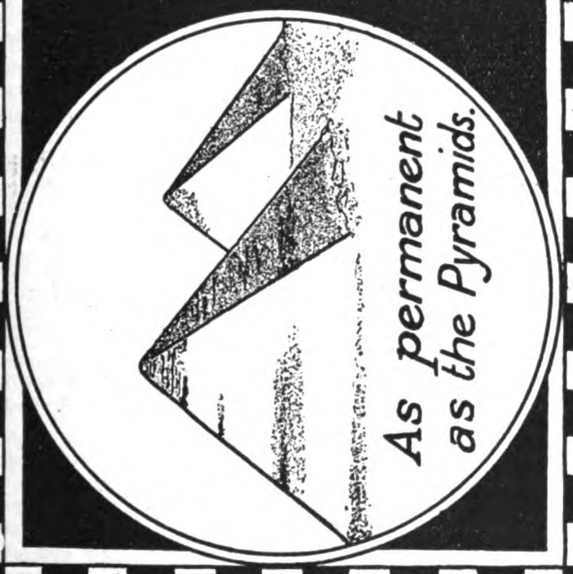
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London County Council.

A curious and unexpected situation has arisen in connection with the London County Council's recent issue of 6 per cent. local bonds for housing. Up to the present time the total amount agreed to be allocated to Borough Councils for assisted housing schemes is £4,431,614. Part of the money was provided by the Council from other sources, leaving only £3,491,293 to be met out of the proceeds of the local bonds. The net result of the local bonds issue, less expenses, was £3,850,000, so that the Council now finds itself in possession of £359,000 which has not been allocated. Moreover, as a result of the partial holding up of local housing schemes, even the money allocated has not been borrowed so rapidly as was originally anticipated, and the total sum which the Council finds itself unable to apply to the purpose for which it was raised is no less than £1,141,000. This money is being temporarily invested in Treasury Bills.

As showing the rapidity with which the Council has resumed normal activities in the matter of street improvements in London compared with the stagnation which prevailed during the war, it is interesting to record that, whereas in 1916-17 the total expenditure only reached £6,283, the amount sanctioned for this purpose in 1920-21 was £692,142.

General.

The West Sussex Education Committee have received provisional approval for a semi-permanent secondary school for 250 boys which it is proposed to erect at Worthing at a probable cost of about £12,000.

The City Corporation are abandoning the proposed scheme for widening Threadneedle Street between Old Broad Street to a minimum space of 36 feet. The London County Council declined to contribute towards the cost, which was estimated at £213,275.

Worcester City Council have accepted a recommendation from the Electricity Committee in order to carry out developments to acquire generating plant at Southampton from the Disposal Commission, subject to obtaining the consent of the Electricity Commission to the works, and to a loan of £55,850.

The Chesterfield Education Committee on Friday last approved revised plans and estimates for two semi-permanent schools at Old Road, Brampton, and Jawbones Hill, Derby Road. Since July a drop of £1,500 had taken place in the estimates, the final estimates for the two schools being: Old Road, £6,979, or £22 13s. per place; Derby Road, £8,818, or £22 6s. per place.

The late Mr. George Arthur Fox, Dewsbury, Yorks, architect and surveyor, mayor of the borough in 1895, left £16,918. Mr. Herbert Ashton, of Oldham, Lancs, builder and timber merchant, of Messrs. Squire, Ashton & Son, Ltd., who died on August 23 last, aged seventy-three years, left estate of the gross value of £160,175, with net personalty £157,752.

Whitehaven Rural Council have agreed to adopt a joint water supply scheme with the urban district of Harrington at a cost of £45,000. The Ministry of Health are to be asked to sanction the scheme with the least possible delay, and a Government grant will be requested in aid of the work. The source of supply will be Owsen Fell Springs, near Lamplugh, from which an abundance of water is assured.

At a meeting of the North Wales Heroes' Memorial Council on the 16th inst., Mr. D. Wynne Thomas, of Bolton, whose design for the memorial to be built in connection with Bangor University College was awarded the prize of £100 at the Carnarvon National Eisteddfod, was formally appointed the Council's architect. This appointment, however, leaves open the question whether the successful design will be adopted without modification.

Mr. Norman Anton, 87 Union Street, Glasgow, has been appointed Scottish representative of Messrs. R. Jenkins & Co., Ltd., engineers and boiler makers, Rotherham, makers of heating and domestic boilers, range boilers, copper boilers and cylinders, storage tanks, etc. Messrs. Robert Jenkins & Co. desire to give notice that they have very considerably reduced all prices for welded range and independent boilers, copper boilers, cylinders, etc.

The deputation appointed in March by Newcastle Board of Guardians to consider the most economical method of constructing the new nurses' home reports that visits of inspection were paid to a number of homes in London, Leicester, Sheffield, and Bradford. The deputation was engaged practically a week at a cost of £80 7s. 2d. The revised plans give an extra bedroom accommodation of seventeen, the original estimate being 161 beds. The original estimate submitted to the Ministry of Health was £78,420, whereas the latest estimate is £59,598.

Messrs. H. Taylor & Wallis, civil engineers, Newcastle, have been appointed engineers for the sewerage purification schemes proposed to be carried out by the Cleator Moor Urban District Council, Cumberland, and the Holstead Urban District Council, Essex, in order to provide work for the unemployed. The schemes, which will cost about £18,000 each, are to be proceeded with as early as possible, and they will be carried out on the gravitation system.

The Science Standing Committee of the Royal Institute of British Architects received an invitation from the Director of Building Research to pay a visit of inspection to the Experimental Station of the Board at Acton. The Committee accepted the invitation, and arranged that a special meeting of the Science Standing Committee be held on Thursday, November 24, at 2.30 p.m., at the experimental station of the Building Board at Long Drive, Old Oak Lane, Acton.

The York Memorial Committee report that Sir Edwin L. Lutyens visited the city and inspected various sites suggested for the memorial. The Committee, after considering his report, have selected the piece of grass land between Lendal Bridge and the archway under the city wall leading to Leeman Road, which site has been approved by the City Council. Sir Edwin Lutyens has prepared a design incorporating the Great War Stone of Remembrance, which is a marked feature of the cemeteries of our fallen men in France.

The Civic Education League is organising a visit to Paris for the purpose of affording those interested in sociology, regional survey, industrial conditions, local government, and the civic arts an opportunity of first-hand study. Mr. Alexander Farquharson, M.A., is in charge of the educational side of the tour, and will take the region as a basis of study. The League has secured the use of a small residential college situated in the Latin quarter. Students will be resident there during the full time of their stay. The general arrangements of the tour are in the hands of Miss Margaret Tatton, Civic Education League, Leplay House, 65 Belgrave Road, S.W. 1, from whom all particulars may be obtained.

The Royal Institute of British Architects has published a pamphlet containing full particulars of the channels through which membership of the R.I.B.A. may be gained, together with a list of the "recognised schools" and the special exemptions which have been granted to candidates who take certain of their courses. The pamphlet gives concise information on the three stages which a candidate has normally to pass to obtain the Associateship, R.I.B.A. The candidate must qualify as a probationer, as a student, as an Associate, and full particulars are given as to the qualifications required for registration as a probationer, as to the intermediate examination (success in which qualifies a probationer for registration as student), as to the final examinations, which qualify for registration as Associate. The pamphlet may be obtained at the R.I.B.A., 9 Conduit Street, W. 1, at the price of 1s., exclusive of postage.

Housing News.

The Gelligaer Council have accepted the tenders for the erection of additional houses on the Bargoed site. The figures are £670 (average) each for one type of house, and £570 for another type, which works out at approximately £400 per house cheaper than those recently completed on the same site. The successful tenderers were Messrs. F. & R. Lewis, Bargoed.

The following figures show the progress that has been made in the State-aided housing schemes in Scotland up to October 31, 1921: Permanent houses completed, 3,376; temporary houses completed, 604; reconstructed houses completed, 67; houses built under the private subsidy schemes, 1,012—a total of 5,059. In addition there are 14,233 houses under construction, of which 2,170 are being built with the aid of the Government subsidy to private persons. The total amount paid out by the Scottish Board of Health in respect of the 1,012 houses completed under the subsidy schemes is £244,976 13s. 4d.

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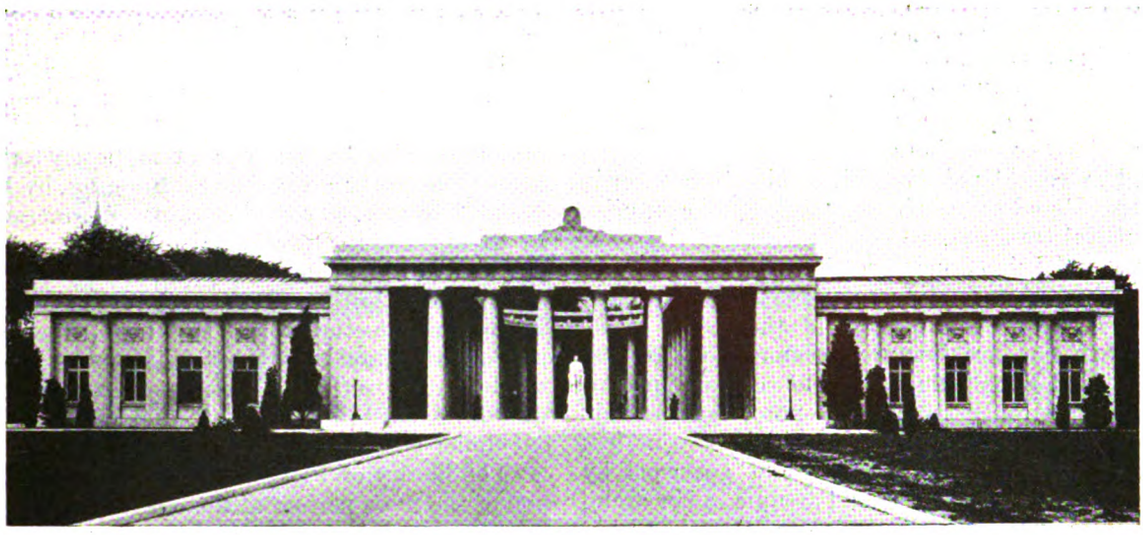
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American Architecture.

(See Inset Illustrations.)



McKINLEY BIRTHPLACE MEMORIAL, NILES, OHIO. McKim, Mead & White, Architects.

We doubt whether the modern architecture of any country has ever been better and more completely illustrated than American architecture is in the magnificent collection of photographs and drawings now on view in the Institute galleries. The great difference between modern American architecture and that of any other land is that it must be regarded as the architecture of a continent untrammelled by past traditions, inhabited by a people which has been built up by immigration from every land in Europe, so completely merged and transformed that the resulting nationality is as sharply distinguished and differentiated from any other as are any two of the nations of Europe. The truest thing we ever heard of America was the expression " if we spoke different languages we should understand each other better," for it is a fact that the use of a common language leads an Englishman to look for similarities where very frequently none exist, and to forget that the influx of other nationalities has profoundly modified the old Colonial outlook of the thirteen States who endorsed the Declaration of Independence in 1776. Since that time the absorption of Louisiana, Florida, and California, the settlement of the Middle and Far West by a population partly owing its origin to Germany, Sweden, and other lands, the immense Irish immigration of the Famine years, have resulted in the formation of a nation in whom we can trace traits derived from every race in Europe, completely merged in a nationality as distinctive and sharply defined as any of the people of the Old World. So it is with American architecture, the Colonial tradition with its delicate Georgian character, the Dutch farmhouses of New York State, the Spanish mission buildings of the Pacific slope, and the French and Spanish influences in Louisiana are apparent here and there in modern American work, as is the strong influence of the French-trained students of the Beaux Arts, but all is in a rapid stage of solution into a form of national architecture which has its own distinctive characteristics, and may be likened to the outcome of an analysis of the merits of European architecture as a whole, built up round the expression of the wants of a civilisation of matchless vigour and vitality. It is too early to say whether America will reach the more or less crystallised state of Europe within the span of a few more generations, and whether similar developments will take place in virgin territories, or whether, within her vast limits, she will be to coming centuries what Imperial Rome was to the nations of Europe. It suffices to say that her architecture is Continental, as throughout the length and breadth of North America American influence and prototypes in building are everywhere followed wherever great building development takes place. From Maine to California and Florida to Oregon we find less local difference in the people than there is between those of London and Edinburgh, and so the characteristic types of American building show less dissimilarity than those of our own land. The sky-scraper, with its crowning architectural features, the columned city hall, and the same types of dwelling-houses and churches are found throughout the length and breadth of the United States, and mark the architecture of a people which, bound by no tradition, is uniformly moulding the wants of its life into common forms, varied, it is true, in excellence, but possessing a singleness of purpose and definition of aim we look in vain for here. But, in recognising the great work which has been done in America, we in this country should appreciate merit rather than take these buildings as a model on which to found our own conceptions. Mr. McKim, on one of his visits

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here, expressed himself by saying it was "ungracious to criticise" where he had been almost "killed by kindness," but it seemed strange to him that "living under the shadow of the dome of St. Paul's English architects seemed so little influenced by their great traditional work." We think in this McKim was right, and that there is too great a tendency here to look afield for inspiration which we can gain from our own immediate surroundings of the past, and to be dazzled by the larger scope which is natural and proper in America, but inappropriate in a land which is developing out of a great historical past. It is easy to forget also that America has an atmosphere comparable to that of Southern Europe in its clearness, a factor which renders it natural that her architects should carry out work which is comparable in its fineness of detail to that of Italy, but which would be often like a partly legible page of print seen in a poor light if erected here.

Rightly considered, English architecture never in its native Renaissance phases shook off the imprint of mediæval tradition, which is present in the work of Wren and Inigo Jones and that of Chambers and Gibbs, which sharply differentiates it from the more completely classic architecture of the Latin races. Only when our architecture became more or less fossilised under the influence of the scholarly pedant did this, its strongest individual note, become submerged. It is natural that America, more or less influenced by her Latin strains and governed by other climatic conditions, should assume in her architecture a more purely classical form than has been practised here; but it would be regrettable if we followed her lead, to the detriment of influences which have governed the best periods of our vernacular architecture, and will, we hope, be prominent in our future work.

We illustrate this week a selection of some of the most notable drawings and photographs shown, but it is difficult to select where we might fittingly illustrate nearly every drawing and photograph shown. We have always admired the Municipal Buildings of New York, which contain within a very limited area a similar amount of accommodation to that contained in the London County Hall—an illustration of the very different nature of similar problems in two countries.

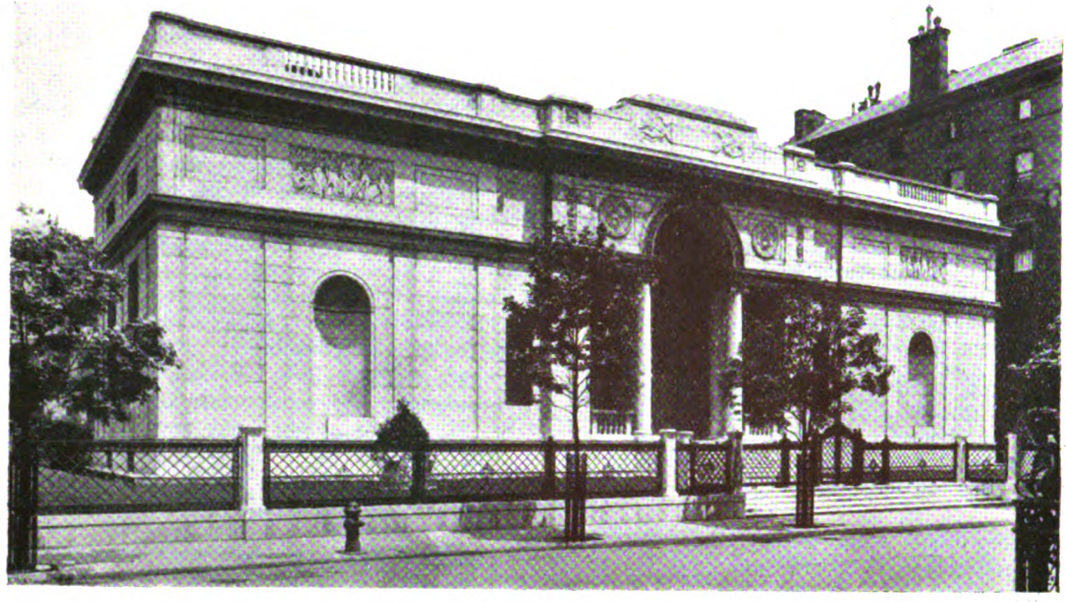
The Panama-California Exhibition Buildings at San Diego, and the First Congregational Church at Riverside, California, are good examples of the skill with which American architects have utilised old Spanish tradition—a type of work of which first expression was given by Messrs. Carrère & Hastings' buildings at St. Augustine, Florida, nearly forty years ago. The Gorham Company's Building, by McKim, Mead & White, is a fine example of American skill in giving architectural emphasis to a commercial building, while the Pennsylvania Railway Station shows their skill in adapting the great features of Roman architecture to modern use. Such a Hall, appropriately and reasonably as it may be used under the bright sky of New York, is an example of what would be most inappropriate and disappointing in our duller climate.

The library of Pierpont Morgan in New York is one of the most perfect of the smaller classic designs by the best American architects, while another good example of reticence in design is the Burden House, Syorset, Long Island, designed by Delano and Aldrich. The exhibition contains a fine series of the



L'HOTEL PONCE DE LEON, ST. AUGUSTINE, FLORIDA. CARRÈRE & HASTINGS, Architects.

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THE PIERPONT MORGAN LIBRARY. McKim, Mead & White, Architects.

Gothic design of Cram Goodhue and Ferguson, and of Bertram Goodhue, which shows an extraordinary mastery of Gothic which is usually poorly represented in the contemporary work of America.

Among the most interesting of the work shown is a selection of a number of old Colonial buildings, the beauty and delicacy of which, as compared with some of our own heavier Georgian, shows what may be gained by the necessity for more rigid economy, coupled with the use of slighter materials.

The very great interest shown by architects and the public lead us to hope that the Institute may find it possible to postpone the closing of the Exhibition for a further time beyond December 9, and possibly to arrange for exhibitions in one or two of the chief provincial centres.

Illustrations.

GENERAL VIEW PANAMA—CALIFORNIA EXPOSITION, SAN DIEGO, CALIFORNIA. Bertram Grosvenor Goodhue, Architect.
LANGDELL HALL, HARVARD LAW SCHOOL, CAMBRIDGE, MASS. Shepley, Rutan & Coolidge, Architects.
MUNICIPAL OFFICE BUILDING, NEW YORK (OLD CITY HALL IN FOREGROUND). McKim, Mead & White, Architects.

Notes and Comments.

Mr. Nigel Playfair at the A.A.

Mr. Nigel Playfair made a clever speech at the A.A., of which body he was the guest of honour, on Monday evening. To say he discussed the question of stage scenery on which he had promised to speak would be to fall into an error; he rather skirted the issues which might have been raised, in the manner of a skilful politician certain of the sympathy of his audience. Had his subject been "How to speak without committing oneself, and yet to delight an audience," we should regard his paper as exactly filling the bill. Everyone was delighted, but, as the questions addressed to him showed, no one could find any tangible point in his address to seize upon and discuss. We gather that Mr. Playfair considers that acting, and not the background of the drama, is the chief consideration; that enough has been spent on scenic representations of a forest to pay for a national endowed theatre, and that because a scene takes place in a library we need not trouble ourselves about the books, and that in the past the railways have been able to charge high rates on scenery they need not have carried. He welcomed the co-operation of the artist and architect without convincing them that an El Dorado awaited them. He did not think that the designing of stage scenery and backgrounds would ever be paid for in the shape of a handsome share in the profits of a successful production, but considered that £100 for a scene represented about the outside amount a successful artist might expect.

Scenery as a Field for the Architect.

Mr. Playfair suggested that schools of architecture and of art should form classes for the study of decoration in connection with the stage, and said if they did so he and others would seek their help, and, like many good speakers, he interlarded a discursive address with some exceedingly clever stories. Perhaps the most dramatic climax was the moment when he sat down, as his audience had been worked up to the pitch of believing that he was really going to express his inner convictions. He skilfully evaded a question as to whether he thought the cinema would kill the theatre, but admitted that he had hardly ever seen one. We incline to the belief that abstraction and realism may both have a place in the setting of stage plays just as Meissonier and Cézanne have both a legitimate province in the world of art. Probably the key of the problem is the play itself; some plays seem to us to call for defined backgrounds, while in others action may more fittingly take place in front of a curtain. We may argue that a play like "Quinneys" is either not a play or that it should never be performed, but if we assume that it is to be performed we should not say it would gain by being presented with a background such as Mr. Playfair would favour. In effect it would seem that there is room for many types of scenic background, and in some cases for none at all. All we know is that Mr. Playfair could delight any audience without the accessories of scenery, lights, and backgrounds, but, unfortunately, every actor is not equally gifted by the gods.

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A Dilemma and an Injustice.

A correspondent of one of our contemporaries gives an interesting example of the working of the provisions of the Rents Restriction Act. He says:—

My wife owns a small shop at Brighton with four living-rooms over. This was let to a lady for the sale of blouses, &c. As the business did not pay, permission was given to sublet to a suitable tenant. Without our knowledge or approval, and distinctly against our wishes had we been consulted, the house was let to three sets of tenants. The original tenant left (incidentally owing six months' rent), and the sanitary authorities now call on us to make additions and alterations to render the premises less unfit for three sets of tenants. I claim that it is unreasonable to compel me to alter them for a use of which I disapprove, such alterations being quite valueless after the expiration of the Act. The people now in possession refuse to leave, although they had agreed to vacate at the end of the tenancy. They have practically seized the house, and are using it for a purpose for which it was never intended and is quite unsuitable. The justices sympathize with me, but state that, as three sets of tenants are in possession, a nuisance exists; and I must carry out the alterations within three months, unless I can in the meantime get rid of the tenants, though they do not suggest any way in which I can do so.

The above represents what we can only describe as an intolerable injustice. Is it not time that the Rents Restriction Act should go?

Manchester.

The Lord Mayor of Manchester advises the city to seek an extension of its boundaries with a view to unifying and bringing into one system surrounding districts which largely owe their origin to the activities of Manchester itself. It is pointed out that within a radius of ten miles from Manchester dwells a community which is administered by forty or fifty different authorities, and reformers quote London as an example they would like to see imitated. It cannot be denied that when districts in the course of their developments touch or nearly touch one another, questions arise which should be dealt with as a whole instead of in two separate sections, in which case there is bound to arise much overlapping of services and control, besides the creation of the unpleasant border districts which surround most of our urban districts now that the town wall belongs to ancient history. Æsthetically the larger an enclosed place becomes, relatively the smaller is the ratio of the space enclosed and the length of boundary line, and as the worst offences in the way of building occur at the boundaries of an urban district there is a distinct gain in reducing the number of aggregates of municipal and local authorities and replacing them by larger entities. For all of which considerations the claims of the Manchester reformers seem to us to be founded on reason.

The White Lead Controversy.

The International Labour Conference in connection with the League of Nations, which has been held at Geneva, has adopted resolutions which will after a term of six years bar the use of white-lead pigments. We regret the decision, as the evidence we have read and examined has convinced us that the case against the use of white lead rests on prejudice and partial statistics, and that an immense injury may be done to a flourishing English industry and to a most useful building material. It is quite clear also that any law passed to enforce the resolutions will be most difficult to enforce and easy to evade, and that white-lead paints will continue to be used in spite of any inspection which may be insisted upon. After all, it is unreasonable that we should treat even the British workman as a child, or assume that it is past his powers to carry out the simplest and most reasonable precautions which could be employed by any intelligent child. There are reasons for believing that it may be necessary to watch the proceedings of these International Conferences very much more closely, as those who agreed to the League of Nations are compelled to introduce legislation to enforce their decisions.

The Choice of Architects for the Ulster Government Buildings.

Though we think that the Ulster Government have placed the design of their new buildings in good hands, we regret that it was not found possible to either employ prominent Irish architects or to hold a competition for the new buildings. We believe, however, that political reasons may have had something to do with the decision made. Ulster never wished for any separation from the United Kingdom, and accepted her new status with resignation rather than enthusiasm. Her position is that she places more importance on her connection with the United Kingdom than on her community with the remainder of Ireland. We can understand under such circumstances that the appointment of English architects might be felt to be a reiteration of her convictions on a side issue, and, if this is so, it may be some sort of a consolation, if a poor one, to those who feel their claims have not been adequately recognised or considered. We occasionally feel that the architects of the Metropolis obtain what may be considered to be a rather fuller share of the honours than their brethren in the provinces. Equality in such matters is difficult to arrive at, though it should be the wish of all to achieve it.

Forthcoming Events.

Friday, December 2.—Exhibition of American Architecture at 9 Conduit Street, W. Students' evening arranged by the Board of Architectural Education. 8 p.m.

Monday, December 5.—Royal Institute of British Architects. Business General Meeting at 9 Conduit Street, W. Election of Members. 8 p.m.

Tuesday, December 6.—Liverpool Architectural Society. Meeting at 13 Harrington Street, Liverpool. Paper by Mr. S. C. Ramsey, F.R.I.B.A., entitled "The Architectural Treatment of a Small House." 6 p.m.

Wednesday, December 7.—St. Paul's Ecclesiological Society. Meeting at 7 St. Andrew's Street, Holborn Circus, E.C. Paper by Mr. Samuel G. Short, L.R.I.B.A., entitled "A Visit to some English Cathedrals." 8 p.m.

— Institution of Sanitary Engineers.—Meeting at Caxton Hall, Westminster, S.W. Paper by Mr. S. A. Hill-Willis, entitled "Town Planning." 7 p.m.

— Royal Archæological Institute.—Meeting at the Society of Antiquaries, Burlington House, Piccadilly, W. Papers by Mr. E. W. Lovegrove, M.A., entitled "The Cathedral Church of St. David's," and by Dr. Alfred C. Fryer, Ph.D., F.S.A., entitled "The Recently Discovered Lead Font in Lower Halstow Church." 4.30 p.m.

Thursday, December 8.—Architectural Association. Conversazione at 34-35 Bedford Square, W.C. 8 p.m.

— Edinburgh Architectural Association. Meeting at the College of Art, Lauriston Place. Paper by Mrs. Traquair entitled "A Short Visit to Egypt." 7.30 p.m.

— Garden Cities and Town Planning Association. Meeting at King's College, London. Paper by Mr. Halsey Ricardo, F.R.I.B.A., entitled "Milan and other Italian Cities." 5.30 p.m.

"The Architect" Fifty Years Ago.

DECEMBER 2, 1871.

THE NEW TOWN HALL AT VIENNA.

PROFESSOR SCHMIDT'S design for the new Town Hall at Vienna, of which we gave plans and views in December 1869, has at last been sanctioned by the Town Council, which has adopted the report of its Building Committee. Several reductions and changes have been made in the plan; for instance, the large room for the meeting of the Town Council has been removed to the back, and the chapel, which was a special feature in our perspective view of the central court, has been altogether omitted. The costs have been reduced to 850,000*l*., which is to be divided over ten years, the time it is expected the building will take to erect. Tenders for the excavations and general carcass will be received in the course of the next two or three months, so that the works may be begun as early in the spring as possible.

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London Art Galleries.

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The Goupil Gallery Salon, which I was obliged from lack of space to pass by with a very brief mention last week, presents some work of very remarkable interest, though in this case, as there are more than four hundred paintings set before us, including some work of very poor quality, a close selection becomes necessary. In the Large Gallery I was impressed especially by Wilson Steer's two paintings. "Southampton," with its cool, grey skies and sense of atmosphere, is a fine and typical creation of this artist, and may be compared in the same room with Walter Sickert's delightful "Dieppe," the bathing beach with its tents and figures silhouetted against the deep blue sky. The same room contains Van Gogh's "Flowerpiece" and two flower-paintings by H. Davis Richter, the best of which is "The Piper," with its hydrangeas, though painted in his somewhat heavy but rich and effective manner, with purple tones dominant.

Borough Johnson has a good study here of a "Rock Village in the South of France"; and there are paintings by Henri Martin (Eglise de la Bastide, fin d'après-midi") and Henri le Sidaner ("Chartres, le vieux Pont sur l'Eure"), which I wish to notice specially in connection with a painting in the Gallery above. This is le Sidaner's "Vieilles Maisons à Chartres"; all these three paintings, as well as Martin's "Ruisseau, Crépuscule," are painted in what is, I believe, often called the "pointelliste" method—that is to say, with brush strokes of pure colour laid on separately to attain luminosity; but far the most successful is Sidaner's "Old Houses at Chartres." If we look into this we find the strokes of pure colour, from yellow through the blues to purple, laid on quite separately, and the canvas intentionally showing through; but we need to get right away to the far side of the room, and then we shall see the whole scene as vibrating with light. The painting is then brought together not on the canvas but in the eye of the spectator; and I have mentioned this really brilliant work at length because it is an interesting method, which has been cultivated in Italy by the followers of Segantini on scientific principles. On the other hand, in Walter Bayes's finely composed "Pont d'Avignon," near this last, the warm, rich colour is kept deliberately very quiet—one might almost say flat. In this room Clara Klinghoffer's "Mother and Child" seems like a material translation of a motive which has been rendered with exquisite naïveté by some of the Italian primitives. The best thing here is the flesh colour: but the drawing of the woman's figure giving her breast is open to criticism, the arm from the shoulder to the elbow being absolutely out of proportion to the rest of the body, while the naked suckling child is so huge that one might suggest as an alternative title "The Infant Hercules."

It was a surprise to me to receive last week an exhibition card from the "Heatherley Galleries" in Newman Street, but on calling there I found that the art school, where I worked myself more than twenty years ago, is still going well, under the excellent guidance of Mr. H. G. Massey and Mr. Ian Macnab, whose water colours are this month on exhibition there. All these paintings are strong, direct work, and I liked especially Mr. Macnab's "Northern Shore" and Mr. Massey's studies of "Montreuil" and series of the military cemeteries in France, where the lines of tombstones appear, as I believe they do in reality, like regiments of soldiers lined up for the call of duty. I understand that the evening classes here have ceased, but the day classes continue for costume, nude, composition, and still life from ten to four daily.

It is not, I believe, the first time that the designs of American architects have been placed before the London public, but those now being shown at the Royal Institute of British Architects are an exceptionally interesting collection. I shall, of course, only treat them here from the point of view of design and general effect, leaving further problems to those better qualified; but I was myself immensely impressed when in the States more than ten years ago by the rich variety of architectural growth. In the designs here shown we find amply illustrated such distinctive features as the "sky-scraper"—"Metropolitan Bank Building, Minneapolis," "Municipal Building, N.Y.," "Risk Rubber Co. Building, N.Y. City," and other designs—and the magnificent public buildings and capitols which in the last two or three decades have been springing up throughout the States, of which the superb domed Institute of Technology at Boston, the Wisconsin State Capitol, and, I might add, the imposing Scottish Rite Temple at Washington, and fine Art Gallery of Thomas F. Ryan at New York may be taken as instances.

Besides these we come upon Gothic design in the Chapel of West Point Military Academy and the Reredos of St. Thomas's Church, N.Y. City, while the Quadrangle of Princeton University brings back to me memories of Cambridge; and we find some beautiful designs for such country houses as that of Peacock Point, Locust Valley (Mr. Davison's estate) and the delightful "Hunting Hill Farm" of Mr. W. M. Jeffords in Pennsylvania. To our own public the "sky-scraper" seems characteristically American: it may be suited to space conditions of New York, but is not desirable, most of all in its cruder forms, for our country, and this exhibition will show that, quite apart from this, America can show us beautiful and original forms of architectural design.

The Collections Gallery opened on November 21 what is, I believe, its first exhibition with water-colour sketches by William Walcot and H. M. Atkins. Mr. Walcot's work is well known to many of my readers; bold in design and rich in colour are his thirty-five studies shown here, many dealing with Italian themes—the Villa Papa Giulio, the fountain of the Piazza Termini, also at Rome, at Capri a poet's house, with the "Pirates Ruined Residence" and the "Giudecca of Venice" being among those I noted, contrasting with the colder steel-grey colour of the "Power Station at Chelsea." Miss Atkins has about a dozen clever studies of fishing-boats with their coloured sails from Venice or Concarneau and Douarnennez in Brittany.

At the Little Art Rooms in the Adelphi Mr. Maurice Baring is exhibiting a set of water-colour paintings, many of which take their subjects from Central Russia. Mr. Baring, who has been described as a "poet-painter," shows in such subjects as a "Garden in Russia" and "Sosnofka, Russia," as well as his "Aerodrome in Picardy," a good sense of colour and atmospheric effect. I observe that the introduction in his catalogue claims him as "a capable painter of ghosts"; we may assume that his "Lady Macbeth" may be taken as an example, but if ghosts elect to appear in human form their artistic embodiment needs some adequate grasp of figure-drawing, and here this "poet-painter" does not excel.

Early next month the Leicester Galleries will give a memorial exhibition of the work of the late Claude Lovat Fraser, the brilliant designer of the costumes and scenery for the successful revival of "The Beggar's Opera." The rearrangement of the early Italian paintings in the National Gallery of the Florentine, Umbrian, and Lombard schools is now completed, and on the day I write these notes will be open to the public. This new arrangement is intended to be permanent, and offers features of such interest that I prefer to reserve it for more detailed treatment in a later issue, as well as certain recent acquisitions which have considerable technical importance.

S. B.

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R.I.B.A. Exhibition of American Architecture.

The exhibition of drawings and photographs illustrating contemporary American architecture, now being held in the galleries of the R.I.B.A., was opened on November 23 by Viscountess Astor, M.P. Lady Astor was received by the President of the Royal Institute, Mr. Paul Waterhouse, together with members of the Council, and spoke from a dais in the Great Gallery.

Lady Astor observed that she felt great hesitancy in coming to speak at that wonderful exhibition. She remembered Mr. George Moore's remarks on politicians and aristocratic patter about art. Furthermore, she had received the following letter from a friend, who managed to combine fox-hunting with socialism:—

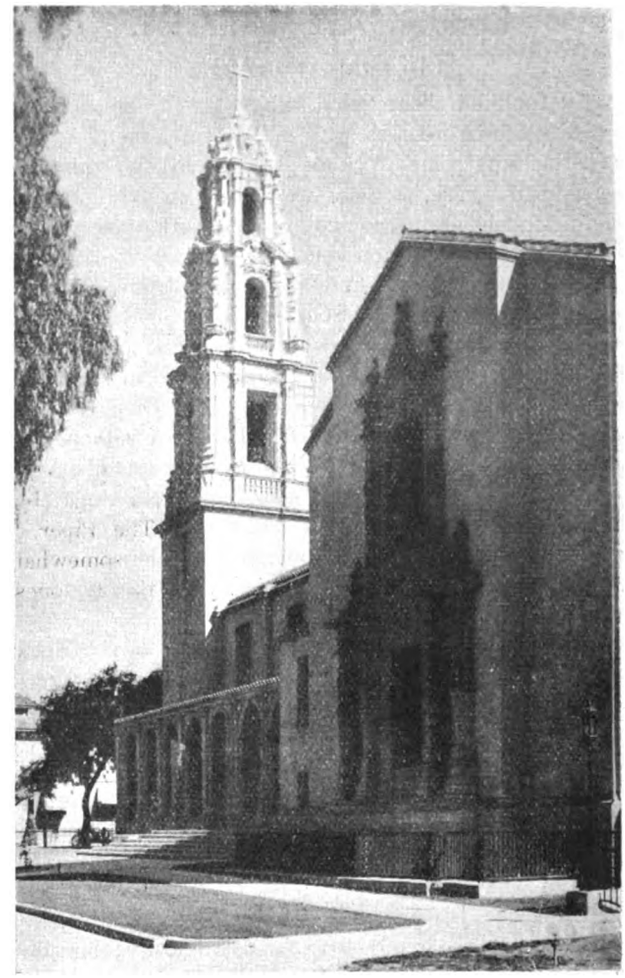
Kind regards and apologies for suggesting speeches to such a nimble wit as yours, but I did not feel you were quite on your own ground the last time I heard you talking about arts and crafts. As it is about as difficult to get honest architecture as honest anything else to-day, can I suggest you should propose to them that there should be a ten years' style holiday, like the ten years' naval holiday, and that architects give up plastering classical mouldings over buildings during that period, and really try and consider modern materials and modern ways of building? Another thing you might say to them is that no architect should ever be allowed to build a family house until he is married and has had three children; and even then he must submit the plans to his wife first.

Lady Astor, continuing, said she certainly did not feel very much at home with the arts and crafts; but she could claim to have known Mr. Carrère, Mr. Hastings, Mr. McKim, and Mr. White—all of whom were great geniuses in their way. In this country we had got a lot to learn from the United States in the matter of public buildings. When she went back there she was never more amazed than when she saw the beauty of its stations. Modern American architecture was an eye-opener. But there was one thing they had not got in America. The outside of their houses might be more beautiful; but she defied anybody to make the inside of the houses more comfortable than the British. Women felt very strongly about architecture, because they have to build up the characters inside the home, as the architect has to build up the characters of those who pass by on the outside and look. She hoped the exhibition would help by showing what could be done in public buildings. This country possesses wonderful monuments of the past, but some of the modern buildings are not quite up to that level.

Mr. Waterhouse, in moving a vote of thanks to Lady Astor, recalled the story of the child who said the feminine of M.P. was "Empress." Her ladyship was the most gracious embodiment and incarnation of the entente between the two great English-speaking nations—an entente which was a very important thing. It was a remarkable fact that in America architecture was more European than in Europe.

Major-General John Seely, M.P., in seconding the vote of thanks, remarked it was a fortunate thing they had got that Exhibition there, and Lady Astor to open it. Speaking as a humble student, he thought we had a great deal to learn from America, and that America had a great deal to learn from us. The more each saw of the other the better, especially in architecture, where ideas had been so divergent, producing such extraordinary varieties of style and thought in this the greatest of the Arts. It was high time they came together and made common cause in this as in other things.

Lady Astor, replying, observed that the strongest link uniting the two countries, more than written treaties or boundaries, was the fact that the American and English peoples had the same ideas about home. It was uniting the two nations, and making them as a beacon light to all other races. So architects coming together, as in this Exhibition, was just American and English thought coming together to construct everything which will be permanent and beautiful.



FIRST CONGREGATIONAL CHURCH, RIVERSIDE, CAL.
MYRON HUNT, Architect.

American Architecture.

(See Inset Illustrations.)

By a happy coincidence the opening of the Exhibition of American Architecture at 9 Conduit Street, last week, coincided with the arrival in London of two most distinguished American architects—Mr. Bertram G. Goodhue, and Mr. Donn Barber—for a short visit. Mr. Goodhue, whose brilliant work at West Point and elsewhere is well known on this side, is one of the foremost leaders of the Gothic School, while Mr. Barber is an equally enthusiastic disciple of the Ecole des Beaux Arts. The R.I.B.A. took immediate advantage of their presence in England to arrange a public meeting, at which Mr. Goodhue and Mr. Barber delivered short addresses on American architecture. This meeting took place on Friday last, the 25th ult. in the Great Gallery, and there was a crowded and enthusiastic audience. Sir E. L. Lutyens, R.A., occupied the chair.

Mr. Bertram G. Goodhue, in introducing his subject, claimed indulgence should he not succeed in making things clear because they were not in truth so very clear to himself. In England there were traditions, varying, to be sure, in various localities, but all very definite. In America there existed scarcely anything of the sort. There were no extremes of English climate; while in America, Florida and Southern California are as different from New England—the Scotland of America—and from the North-Western States of Washington and Oregon as could be imagined. Furthermore, a number of ethnic backgrounds had to be considered: Puritan New England French Louisana, Spanish California, and Florida. So allowance must be made for the stylistic jumble to be seen in that exhibition. Perhaps rather more styles were used than might be right; but clients—especially lady clients—have very decided ideas, and woman is more powerful, more strongly entrenched, in the United States than anywhere else

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American architects are divided into camps: very opposing camps too. Mr. Barber, for instance, was a graduate of the Ecole des Beaux Arts, in Paris, an Institution with whose works some, himself for one, are not quite in sympathy. For he (Mr. Goodhue) had upheld as staunchly as he could the British tradition, and would continue to do so. It was a melancholy fact that the British element, now forming perhaps half of the population, is constantly dwindling, and that the other breeds are increasing by leaps and bounds, so that the British—and he, for one, was as purely British as anyone in that room—must in time lose their supremacy.

In that Exhibition there were all sorts and conditions of buildings to look at. State capitols, churches, schools, and houses. He regretted the plans were not there too, because he could not help thinking that in practical planning America has set a pace a little faster and a little better than this country; in certain directions at any rate. Take country houses, for instance. Why in so many cases in this country should the service between kitchen and dining-room be made to cross the entrance or staircase hall? And, too, it seemed to him that American "classic" work was better than English in that it was simpler, more direct, and, as a rule, untroubled by pavilions, turrets, rustications, and what not. Take such magnificent things as Pope's "Scottish Rite Temple" in Washington, or McKim, Mead and White's "New York Post Office." Were they not quieter, more in the grand manner than anything in London? Personally he disliked modern classic, or any architecture where the style was provided by the detail. The orders are now nothing more than a veneer, and columns are the surest way of shutting light and air from the windows that come between them.

The other day, landing at Cherbourg, their train ran past any number of the most charming buildings. Some big, some little, all utterly devoid of "Architecture" with a capital A. They were beautifully constructed of the flat-bedded stone of the neighbourhood, with beautifully tiled roofs and beautifully shaped windows, where such were needed. Of course, the same thing was true of large sections of England; but it was not true of the things architects are doing to-day, neither in France, nor England, nor America, and that is largely due, he thought, to clients and their taste—their invariably good taste. "Taste," good or bad, was a thing unknown until the Renaissance. However, if they looked carefully they would find in that exhibition some buildings of the right sort. For instance, the Rogers House at Southampton, Long Island, by Walker and Gilette. Unfortunately there were not represented any very little houses. These little houses are growing simpler and simpler; so, for that matter, are the big houses, but they are never quite so simple as on this side of the ocean. There was no peasantry in America. Everybody, no matter what his condition, is everybody else's equal. Yes, and usually superior. The small cottager has to have a parlour as well as a dining-room, which is unfortunate for his pocket-book, but he would rather have both of them in flimsy wood (of which there was too much in America) than a proper combination affair in more enduring material. Shingles instead of slates or tiles are the usual American roofing too, and due to the same causes. But things were slowly improving.

As for Gothic, he supposed he was expected to act as Devil's Advocate for this much-despised style, or rather principle, of construction. While some of them were trying hard to succeed (look at the work of his old partners, Cram and Ferguson, or that of Day and Klauder, for the most manful results) they were really not "in it" with this country. There are so many lovely Gothic churches in England that date, not from the fourteenth, fifteenth, or sixteenth centuries, but from our own time, that on purely sordid and unworthy grounds he hoped possible clerical clients will never make pilgrimage to these modern churches. He wished to say right out loud that no modern, and but few ancient churches, even approach the dignity and wonder and loveliness of the new Liverpool Cathedral.

American architecture is better than it was. Undoubtedly in practical matters they were vastly in advance of what used to be done when he first went to New York as a "kid" draughtsman. Some of them were dreaming of a time to come when architecture, as they understood the word, will cease to exist, and when such ornament as is used will be as instinctive and inevitable as it used to be. That will mean a radical change in the world's civilisation, perhaps even in government. But, old as he was, he could not help believing that some day, somehow, the time will come when there will be a style so ductile as to lend itself to all our extremes of climate and all our needs from the tiniest cottage to the greatest public building.

There was no Bolshevik, or even Socialistic, connotation to be inferred from that hope; indeed, perhaps, quite the reverse; but the world is in parlous case, and must be somehow redeemed. That might not be a primarily architectural problem, but it was one that should interest them more than any other. Everybody must be brought to live in warm, well-lighted, well-ventilated, tight buildings before his, or her, present envy of merely material things, the basis of all our modern unrest, can be changed to happiness and peace.

Mr. Donn Barber, who followed Mr. Goodhue, said that in America they were not divided into such opposing camps as his friend Mr. Goodhue had suggested. If they did not love each other they tried to respect each other. While they naturally found the stumbling stones of jealousy and competition, and all the rush of progress, they got along pretty well together. The fact they were beginning to understand each other was the best augury for the future of the country in its architectural expression. Looking round the walls of that exhibition he had wondered if all present realised how young a country America was, and how unlike England with her traditions going back into the ages. Was it realised that the exhibits dated back not more than ten or fifteen years? All American architecture really had been produced over a period of two generations. Up to fifty years ago they witnessed a great deal of building; but there were no monuments of any importance, with the exception of certain isolated cases—mostly done by foreigners. Of course, they had the so-called Colonial style starting in the South at Jamestown, which was more or less brick; and in the North there was a Colonial based on Louis Seize and Georgian. The façades of the cities were jumbles of cast-iron columns, and were unlovely things. The Exhibition of Philadelphia was merely a collection of sheds made to cover the exhibits. At the World's Fair, Chicago, the promoters decided to do for the first time something to impress the people, something white, large, and simple. There was a Beaux-Arts plan with a Court of Honour, and a not over-marvellous group of buildings. The visitor carried back to his home the feeling for something architectural as a memory of this dream city. From that date things began to change a little. At the Buffalo Exhibition in 1901 colour was introduced by Carrère and Hastings. And lastly San Francisco, aided by its climate and wonderful site, achieved the greatest exhibition of all.

It had to be realised that a man like Mr. George B. Post actually began practising when there was nothing higher than a three-storeyed house. Mr. Post lived to see, and to build, some very high buildings, and a tremendous growth from nothing to what might be called everything. When Mr. Hunt began to practise in the early 'eighties, he was practically the first Beaux-Arts trained architect, He commenced doing monuments. But his work, outside the enthusiasm he brought to it and the scholars he interested, does not stand for much. After Mr. Hunt a great many of the younger men went to Paris to learn something. Of course, the results were fragmentary and stupid. When these pilgrims came back they began doing French things; they were young and enthusiastic. So there was a sort of influx of French millinery in art, especially as for every building designed by an architect there were hundreds designed by contractors. French

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forms were copied without reason, and the country got a tremendous dose of very bad and very stupid stuff. But the men returned with a certain knowledge of the theory and science of planning which had done much to solve the problems of the growing building industry of America, problems which were all new. Personally he felt proud of being a Beaux-Arts man. About this time a very funny thing once happened. In a certain small town a competition was arranged in connection with the proposed town hall. As all the able architects entered for the competition there was nobody left to act as judge, and so the competitors were appointed to act as jury, on the understanding that no man was to vote for his own design. As a result the worst design was chosen unanimously.

American towns are laid out on the gridiron plan. Their forefathers did not possess much imagination. Street architecture was then really the architecture of a façade, and the architect had to do all he could in that façade. Naturally each architect tried to beat the thing opposite or next to him. Designs became things of vertical strips which alone were treated architecturally, the remaining three-quarters of the building having to get along as best it could. That practice did a great deal of harm. A lot of the work was quite hopeless.

There was a reason for high buildings in New York. In the southern part and banking localities of that city, especially round the Stock Exchange, property was in very small parcels at very high prices, so someone thought of very high buildings. With the invention of steel framing these sky-scrapers (a name of French origin) began to grow, and so rapidly that architectural expression lagged behind. All over America people began to build upward, which was stupid, as elsewhere there was not the same reason. Sky-scrapers were an American thing, and ought to have a place nowhere else. Even in New York to-day transport facilities had been so developed it was no longer necessary for them to jostle their buildings together. As something preventative had to be done, there was introduced a year or two ago the so-called Zoning Law. Such a law could not be made retroactive, but it was possible to control the buildings that were to come after. A scheme was devised for preserving light and air in the streets. New York was divided into zones, according to the existing heights of the building. In the lower part of the city there was an area known as the two-and-a-half district—that is to say, the façades could ascend in height two and a-half times the width of the street on which it faced. Above that height the façade must be set back one in three, and so the highest parts were pushed back from the frontage. Then there were other districts with their varying height limitations. The Zoning Law was already beginning to show that, instead of dwarfing the ambitions and imaginations of designers it was bringing forward a system of towers, and buildings were at last being treated as having four sides. The Woolworth Building was a different problem, and stood by itself. If architects were thinking of sky-scrapers for London a perusal of the New York Zoning Law might be useful. Without the modern elevator sky-scrapers would be impossible. Sky-scrapers enjoyed their one advantage in the fact that it was possible to travel by means of express lifts 500 feet a minute in a vertical corridor, instead of proceeding two miles an hour along horizontal passages.

American architecture was extraordinarily interesting to anyone interested in it at all. And perhaps the most interesting thing of any was the consensus of opinion on the matter of scale—that is, the relation of parts. They had had a period of big things. He remembered a lady client coming to him and asking for a living-room 100 feet by 200 feet; but she was ultimately content with one 40 feet by 90 feet. It was possible to get a building too big. At that time everybody was trying to make their buildings impressive, and to make their clients' money talk. Then American architects began to see there ought to be reasonableness in everything. Now certain general proportions are recognised as giving the best results. The sort of gridiron arrangement which resulted had done more to unify the expression of American architecture than anything else. Certain types had become accepted. American architects were getting to understand each other. Mr. McKim in his wonderful way figured out that Italian Renaissance would be more useful to America than any other style. So he frankly set up Italian monuments as an object-lesson.

When all the stress and confusion of the War came to die away America was going to derive one benefit from the pilgrimage made by thousands of her citizens who had returned with an extraordinary love for the architecture and art of Europe. These men were drafted from every class, and brought back an inspiration for fine things which was already beginning to show itself. They had assimilated something of the charm and tradition of England which Americans envied, and which they came over to see as often as they could.

Leeds and West Yorkshire Architectural Society.

The Leeds and West Yorkshire Architectural Society held their annual smoking concert at Pewelnys' Rooms, Bond Street, on Friday evening, November 25.

The President, Mr. John C. Procter, M.C., A.R.I.B.A., occupied the chair, and delivered his address to a large gathering of members, associates, and students.

Prizes were distributed to successful competitors in the Society's annual competitions as follows:—

Measured Drawings.—The Society's Silver Medal and five guineas, awarded to Mr. G. Lionel Broadbent for measured drawings of Guiseley Rectory, near Leeds. A consolation prize of two guineas awarded to Mr. B. Geoffrey Easdale for measured drawings of Ledstone Hall, near Castleford.

Design Competition for the best result in a series of three subjects.—First prize, five guineas, awarded Mr. F. W. H. Allison; second prize, two guineas, awarded Mr. H. G. Avery. The first prize was presented by Mr. Wm. Nicholson, of Messrs. Wm. Nicholson & Son (Leeds), Ltd.

Constructional Design.—First prize, three guineas, awarded Mr. F. H. Wrigley.

Sketching Prize.—Two guineas awarded Mr. R. G. Easdale.

Halden Prize presented by Messrs. J. Halden & Co., Ltd.—A case of drawing instruments awarded to Mr. S. H. Rushworth.

Essay Prize.—Three guineas awarded to Mr. H. Connolly.

Architectural History Prize.—Two guineas awarded Mr. R. G. Easdale.

A vote of thanks to the President was moved by Mr. W. F. Dawson, A.R.I.B.A., seconded by Mr. G. H. Foggitt, A.R.I.B.A., and supported by Mr. T. Butler Wilson, F.R.I.B.A.

A concert arranged by Mr. Douglas Bowman concluded the evening's entertainment.

Competition News.

A scheme of conditions under which architects and sculptors may compete in the submission of plans and designs for the proposed city war memorial on the Dundee Law was approved on Monday last. It was agreed that the cost of the memorial should not exceed £12,500, exclusive of architect's fees and preliminary expenses, and premiums for the best three designs that could be erected within the prescribed cost were fixed at £250, £150, and £100. The designs have to be lodged with the Town Clerk by April 30, 1922. The proposed conditions were drawn up by Sir Robert Lorimer, architect, Edinburgh, the Committee's assessor.

The Atherstone District Council have made application to the Ministry of Health for sanction to raise a loan of £59,734 for carrying out a water scheme to augment the existing supply of the whole district. The Ministry asked to be furnished with certain particulars before holding a local inquiry.

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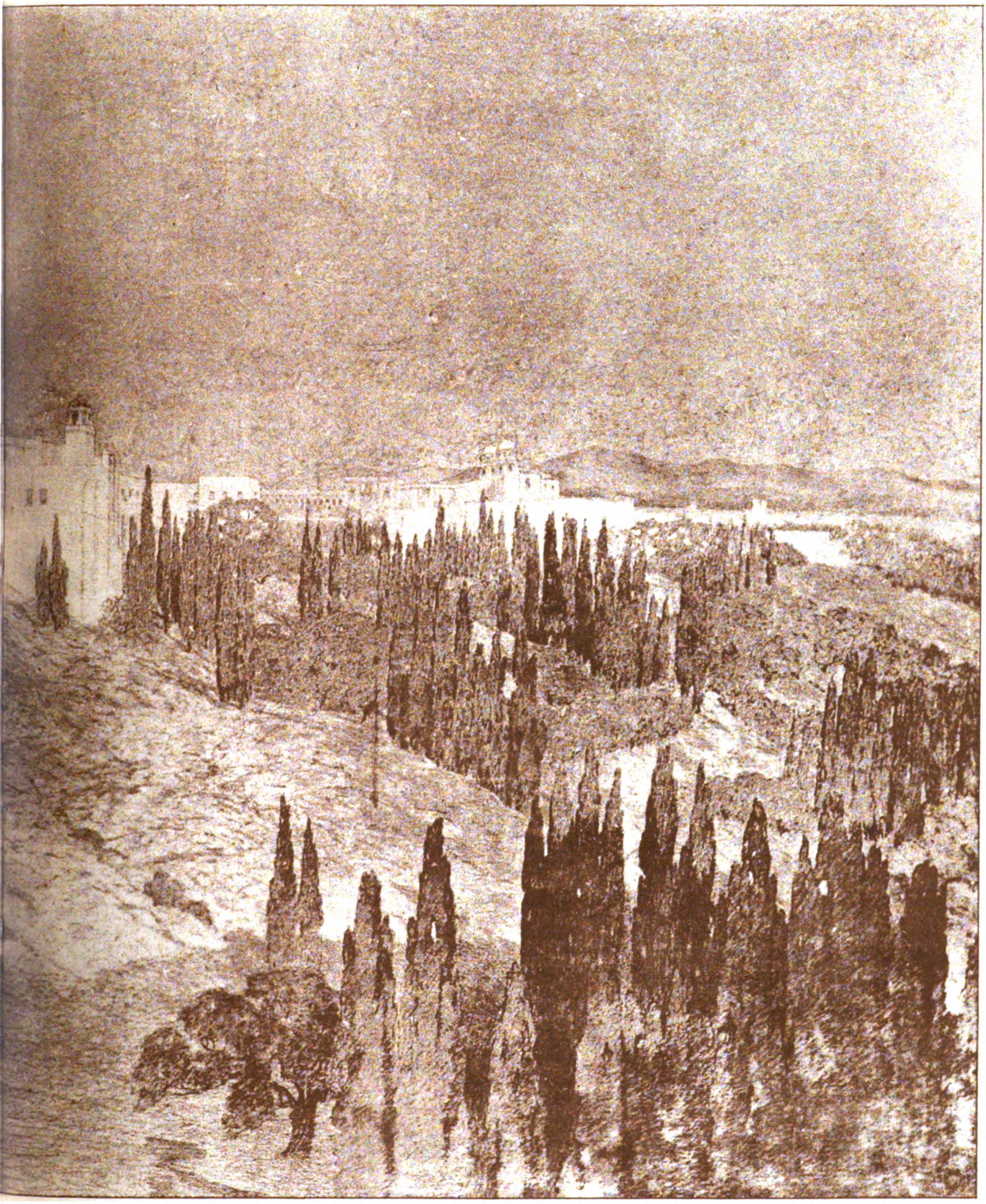
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GENERAL VIEW PANAMA—CALIFORNIA E
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CEMBER 2nd, 1921.



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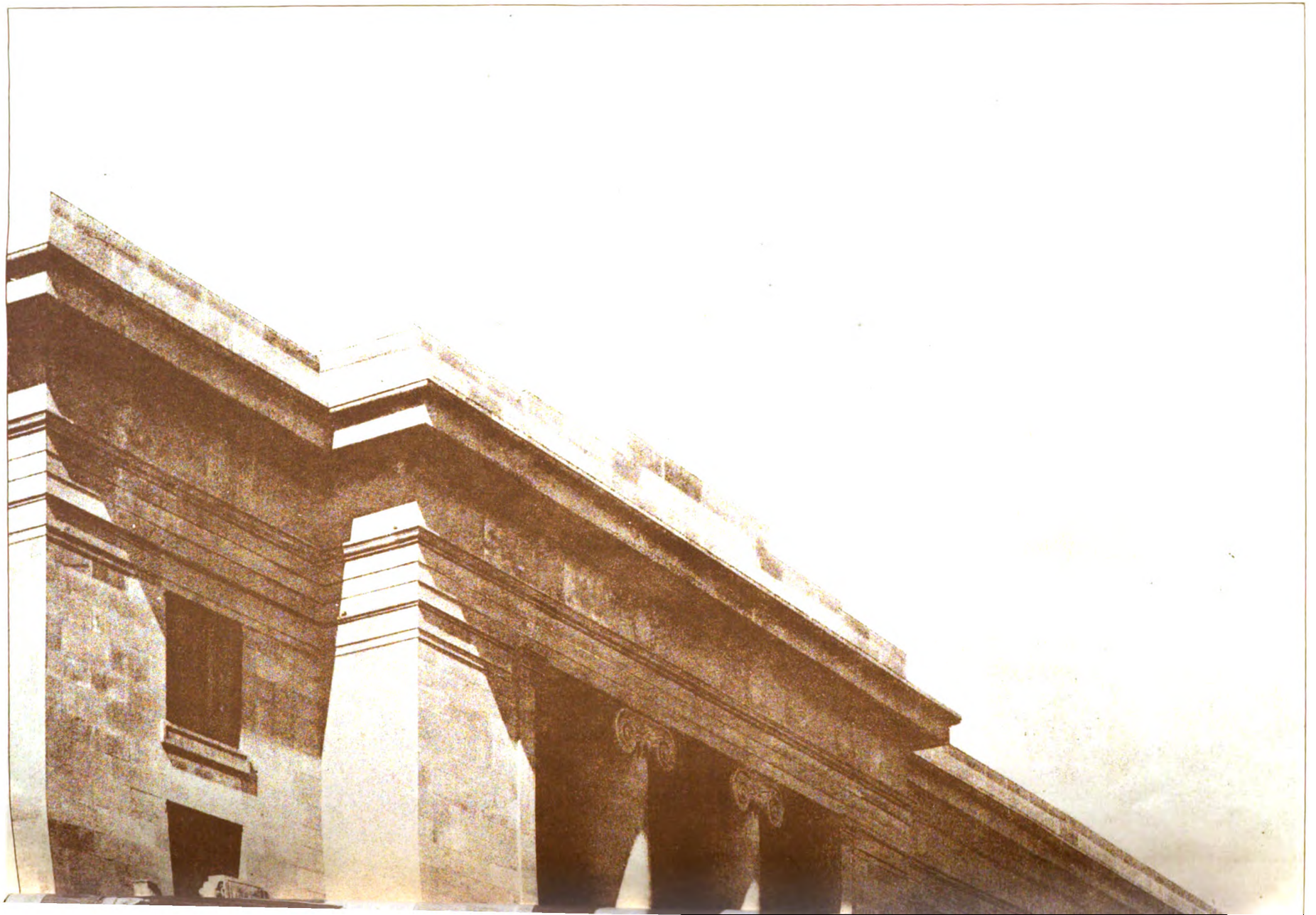
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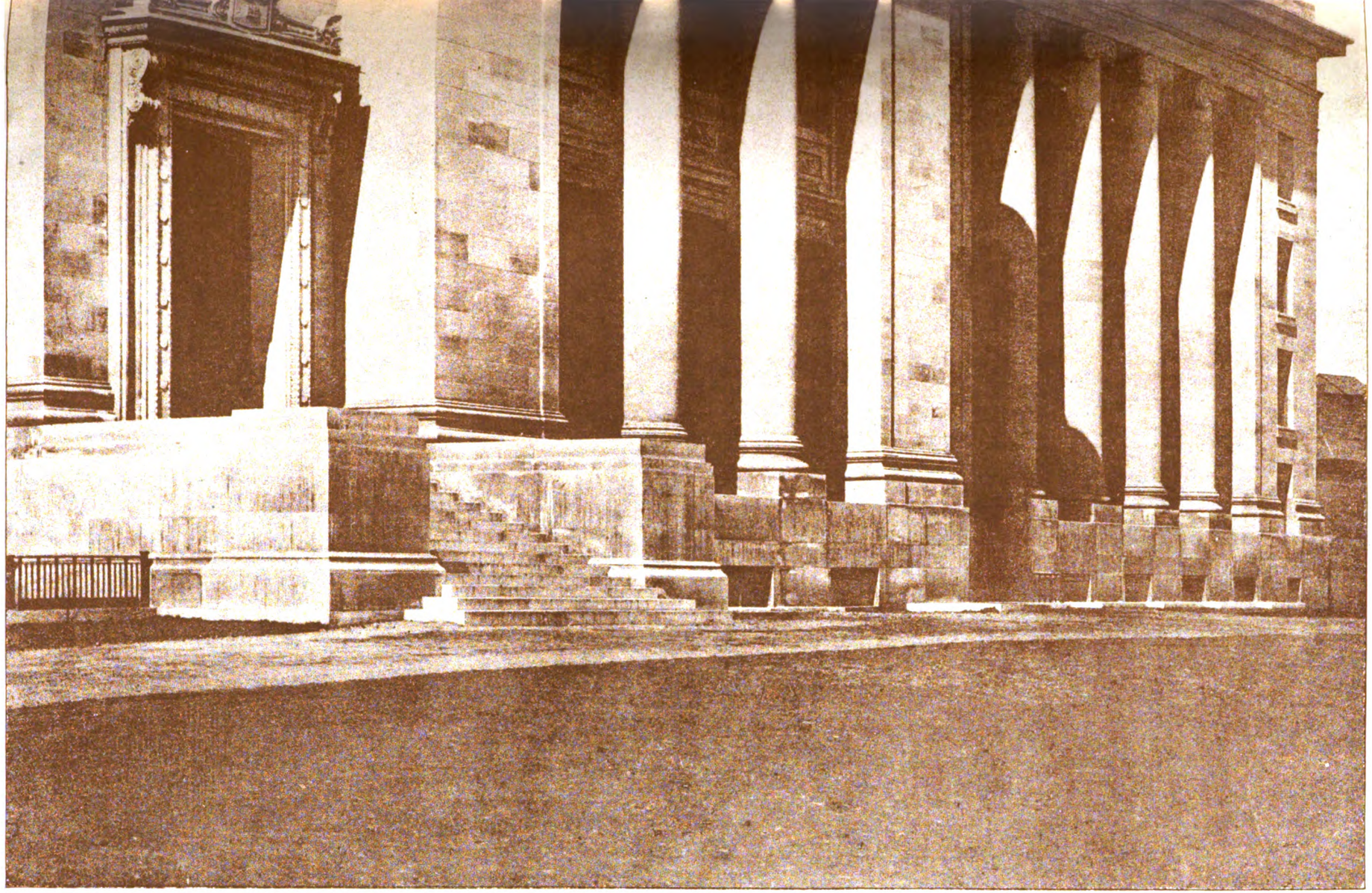
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SHEPLEY, RUTAN & COOLIDGE, ARCHITECTS.

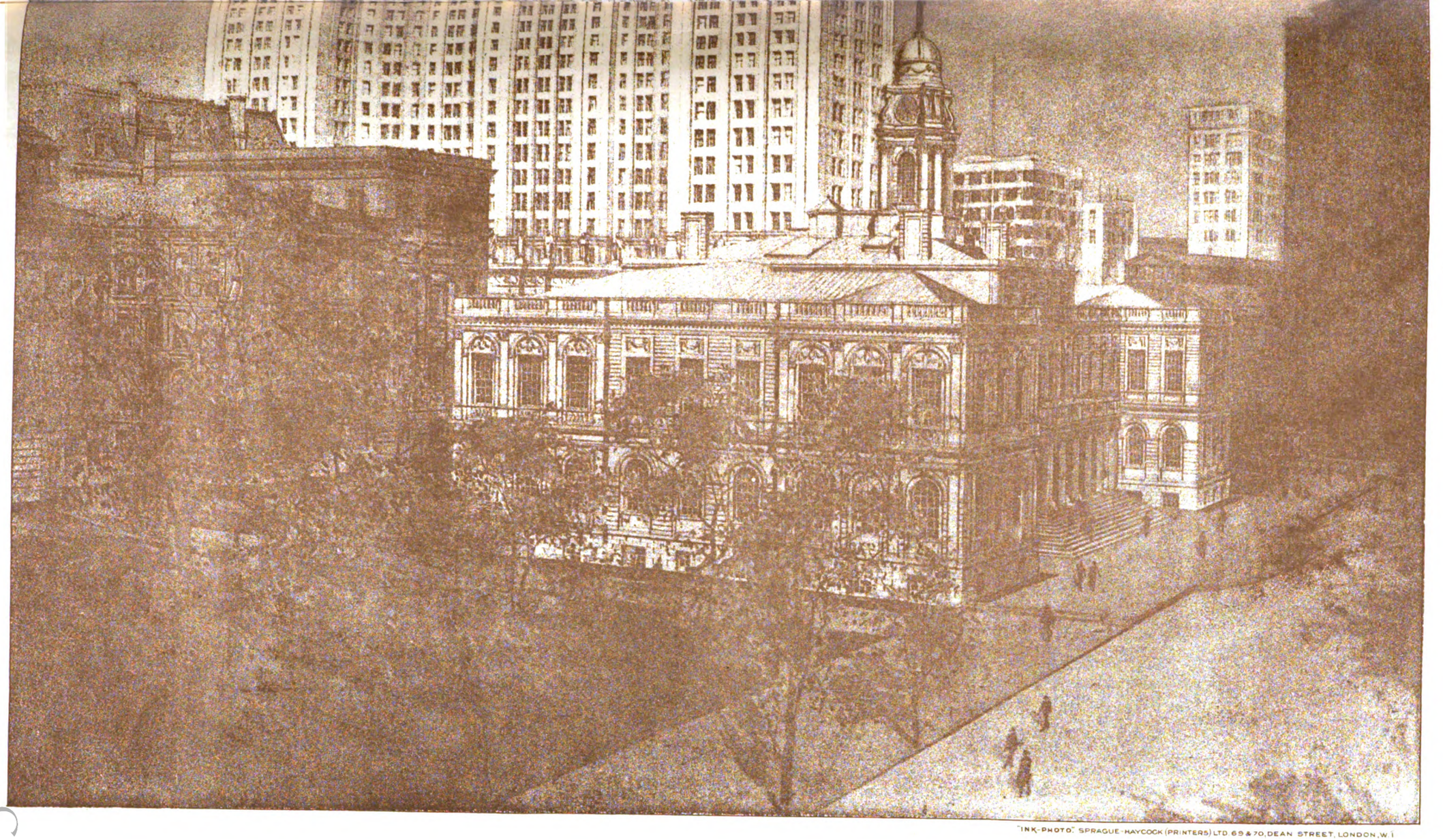
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MUNICIPAL OFFICE BUILDING, NEW YORK (OLD CITY HALL IN FOREGROUND).

McKIM, MEAD & WHITE, ARCHITECTS.

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Royal Institute of British Architects.

A special general meeting of the Royal Institute was held on Monday last, November 28, to consider three resolutions on the subject of the scale of fees for housing schemes. About forty members were present. Mr. Paul Waterhouse, President, occupied the chair.

Professor S. D. Adshead moved the first resolution, which was as follows:—

"1. That while re-affirming the objections to memoranda Nos. 51 (D) and 52, which led to the resolution of July 4, 1921, this meeting recognises the bona-fides of the Ministry in putting forward memoranda Nos. 51 (D) and 52 under the impression that the R.I.B.A. had agreed thereto."

Professor Adshead explained he had been a member of the Committee which was concerned in drawing up these unfortunate memoranda, but, like some others, he had only been put on after the work had been practically done. At the two meetings to which he was called it became apparent that it was impossible to dig into the very foundations of the memoranda: one could only attempt to improve them on one or two points. The negotiations between the Ministry of Health and the Royal Institute had been throughout of an exceptional character and extremely disjointed. The essential feature of the last memoranda was that an entirely new method had been introduced for charging fees. Wider consideration has shown the method to be impracticable and inoperative. The system was, indeed, wrong from the bottom. But the Institute was in a difficulty, having made the initial mistake (of having conveyed to the Ministry the impression that the proposals had been approved by the general body of members). The Institute now wanted to reopen negotiations, and the Ministry were willing to do so. But negotiations, they were told, could only be reopened by "whitewashing" this memorandum and by stating that the Ministry had issued it under the impression that it had received the general consent of the R.I.B.A. It had undoubtedly received the consent of their Council. The proposal of the resolution was that the meeting should whitewash the Ministry with a view to the reopening of negotiations.

Mr. Gunton thought whoever selected the Committee which negotiated with the Ministry ought to be censured. They had given themselves away by accepting the proposed absurd fees. Personally, he would like to know the names of the Committee and their instructions.

Mr. J. H. Kennard said he opposed the motion. On July 4 last the members of the R.I.B.A. were told at a general meeting that the Council would never sanction anything of that character without its being approved by the general body. There was no doubt that they were greatly at fault in not being more precise. The deputation which went to the Ministry only contained three members of the Practice Committee. It seemed to him the whole thing had been so badly muddled it was too late to attempt to whitewash anybody. In his view, the proper thing was to break off negotiations and fight a test case with some local authority in a friendly way. Such a course would give the members a legal decision for guidance. His own dealings with the Ministry had been such that he did not feel prepared to trust them. In one case he knew of a firm of architects who stood to lose over £6,000 on some 500 abandoned houses.

Mr. Henry V. Ashley, speaking as a member of the Practice Committee, complained of a statement by Mr. Kennard in a letter to the Press, in which he said: "It is common knowledge that the Ministry of Health, in consultation with the Practice Committee of the R.I.B.A., evolved the two documents, Memoranda 51D and 52." Up to the time these memoranda were issued the Practice Committee of the Institute had no knowledge of either. Consequently the information in Mr. Kennard's letter was misleading.

Mr. T. Alywyn Lloyd suggested the meeting was in danger of wasting valuable time by going over old ground. The mistake was a mistake on the part of the Institute. Personally he felt satisfied the memoranda were published by the Ministry in good faith.

Mr. Kennard reiterated his opinion that it would be better to repudiate the memoranda, to fight the Ministry, and to get a legal decision. At present the Ministry were placing all sorts of interpretations on Memorandum 51D. At the general meeting on July 4 it had been made clear that the Practice Committee was responsible for the mess.

Mr. Maurice E. Webb expressed a hope that everyone would recognise that housing was a national need. The question of how much could be squeezed out of the Ministry in fees was becoming obnoxious. The profession ought to do the best it could in this matter, just as during the War the country had done its best in various capacities. The results were bound to result in hardship to some, but members ought not to consider fees as the first thing. Housing was not a paying game: it never had been and never would be. The Ministry of Health had told them they would not negotiate unless a committee of three was appointed by the Institute. Surely the appointment of such a committee of three honest men would be far better than all this talk of fighting.

Another member pointed out that whether the Council, individually or collectively, admitted their mistake or not, the fact remained that the Council did make a mistake. The proposed resolution seemed the best way out of the difficulty. He regarded the pastime of cutting off one's nose to spite one's face as not one they should perform in the Institute.

Mr. Burgess thought the important thing to be considered that evening was the three men whom they were going to appoint to re-open negotiations with the Ministry. What the resolution proposed to do was to stroke the cat's back in order to make it purr.

The first resolution was then carried with two dissentients.

Professor Adshead then briefly proposed the second resolution, which was as follows:—

"2. That the Ministry of Health be requested to amend the terms of the memoranda in question."

Mr. Kennard said that if this resolution was passed they would be putting their heads into the lion's mouth. Could not some other word than "amend" be used? It was most important that the R.I.B.A. should not recognise the memoranda. Once they did recognise the documents, the profession would find themselves up against a stone wall.

Mr. Burgess could not agree with Professor Adshead that resolution No. 2 inevitably followed resolution No. 1. The members had previously repudiated the memoranda, and, that being the case, they could not acknowledge it by asking for its amendment. To do so must weaken their position. He failed to see what need there had been for any new schedule of fees. That ought to be made a strong point.

Professor Adshead explained that the idea was to reopen negotiations. The Committee thought the wording of that resolution would satisfy the Ministry, and would also satisfy the R.I.B.A. He would like to see the three resolutions go through. It was necessary to have something in the way of authority from the members to reopen negotiations.

Major Harry Barnes, M.P., said he had been in this business at its very beginning, but was out of it when the memorandum was issued. In passing the resolutions the meeting was in no sense committing itself. They thereby recognised first that there was no bad faith, and second, that the Ministry possessed power to amend the memoranda. Of course, the Ministry had the latter power whether asked by the Institute or not.

Mr. Lucas considered it was important the Ministry should negotiate with architects engaged on housing schemes, and armed with figures demonstrating the tremendous losses incurred. He questioned whether the Ministry had ever been given figures showing the working of the various schemes.

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Eventually the second resolution was unanimously passed in the following amended form:—

"That the Ministry of Health be requested to amend and redraft the terms of the engagement of architects in connection with housing schemes in conjunction with accredited representatives of the Royal Institute."

Professor Adshead proposed the third resolution, which was as follows:—

"That three members be appointed with full powers to agree with the Ministry upon a scale for abandoned work within limits prescribed by the Practice Standing Committee in consultation with interested architects."

Professor Adshead thought there was too much responsibility for one pair of shoulders. The Practice Committee might be in permanent session while negotiations are going on.

The resolution was then passed in the following form:—

"That for this purpose three members be appointed with full powers to agree with the Ministry upon a scale for abandoned work, and upon the matters referred to in the second Resolution within the limits prescribed by the Practice Committee in consultation with interested architects."

Finally the following extra resolution was adopted:—

"That the names suggested—Messrs. W. R. Davidge, H. A. Welch, Francis Jones, Sydney Perks, William Woodward, H. D. Bucknell, and C. M. Crickmer—be referred to the Practice Committee for consideration, and that the Committee be requested to consider these names and others, and to submit six names to a general meeting with a view to the selection of three of them by ballot."

The following are notes from the minutes of the Council meeting held on November 21:—

Reform of the London Building Acts.—The Council received an interim report from the London Building Acts Committee and referred it to the Art, Practice, Science, and Town Planning Committees for consideration and report.

The Staff for R.E. Services.—The Council directed that a letter should be sent to the War Office protesting against the unsatisfactory status of architect members of the staff for R.E. services.

Government Architects in India.—The Council directed that a letter be written to the India Office pointing out the effect of recent legislation on the status and prospects of Government architects, and urging that, in the interests of the efficiency of the service, steps should be taken to guarantee a greater security of tenure for these officials.

The Smoke Abatement Exhibition, 1922.—Mr. Ernest Newton, R.A., was appointed to represent the R.I.B.A. on the Council of the Smoke Abatement Exhibition for 1922.

Retired Fellowship.—Mr. Walter Pott (F.) was transferred to the Class of Retired Fellows.

Mr. William Walcot's Etchings.—A cordial vote of thanks was passed in favour of Mr. William Walcot and his publishers for their gift of framed reproductions of fifteen of Mr. Walcot's classical compositions.

South Wales Institute of Architects.

The opening meeting of the Winter Session of the Central (Cardiff) Branch was held at the Technical College, Cardiff, on November 21, when about eighty members and guests were present at the exhibition of drawings.

Colonel Cecil Wilson, F.R.I.B.A., was in the chair, and he presented the prizes to the successful competitors for design and measured drawings.

After Capt. Percy Thomas, O.B.E., A.R.I.B.A., had criticised the drawings, Mr. H. C. Portsmouth, F.S.Arc., of Swansea, moved a vote of thanks to the chairman.

During the evening Mr. W. S. Purchon, M.A., A.R.I.B.A., head of the School of Architecture, detailed the past work of the school.

Birmingham Architectural Association.

The second general meeting of the Birmingham Architectural Association was held at the Society of Artists' Rooms, New Street, Birmingham, on Friday, November 18. Mr. H. T. Buckland, F.R.I.B.A., took the chair, and Mr. F. G. Minter, a London contractor, read a paper entitled "A Contractor's Views on Contracts and Architects."

In commencing Mr. Minter said that it was certain that a body of architects would not at first agree with the suggestions which he would put forward, for if they did it would mean that we had reached that ideal state of society for which we were all striving, and to which he thought we should never attain.

It should be remembered that every contract depends on three persons: the client, the architect, and the contractor. The client desires a building to meet his requirements, but often he does not consider the appearance of the building if it serves his purpose. He also wishes to obtain his building at the lowest price possible, commensurate with the standard of finish that will suit him. The architect should be justice personified, and hold the balance evenly between client and the contractor. The duty of the contractor is to erect a building in accordance with the instructions of the architect.

There are two types of contract in vogue at the present time. One is the usual lump sum contract, and the other, the percentage or fee contract. With the lump sum contract, the client is supposed to get a competitive price and to know exactly how much he will spend. In practice this rarely works out accurately. Unexpected difficulties may arise even before the foundation walls are above ground. In settling up an account, long periods of time frequently elapse before the final settlement takes place, and the contractor anticipating this is forced to estimate at a higher figure.

With the percentage or fee contract time is saved in preparing an elaborate bill of quantities. The fee is naturally governed by the amount, and to give the contractor a real interest in getting the work done economically, a clause could be inserted, that if the work could be completed under a certain amount the client and contractor should share in the saving.

Concerning sub-contractors, Mr. Minter said that firms are often called in whose work is not of the standard of the general contractor, and who prove a great nuisance and a source of delay. They should be bound by the same conditions regarding time and payment as the general contractor.

Mr. Minter went on to suggest that it would make a good practical finish to a young architect's training to spend six months with a firm of contractors, as it would enable him to see things from both points of view.

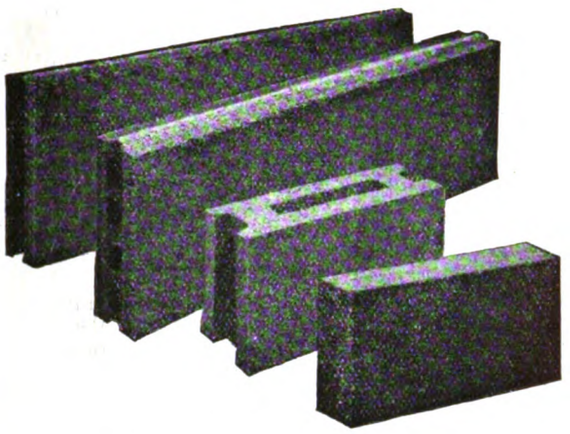
A quantity surveyor can often prevent dispute over contracts if he is a good business man, who understands his architect's eccentricities, and provides for them in his estimate.

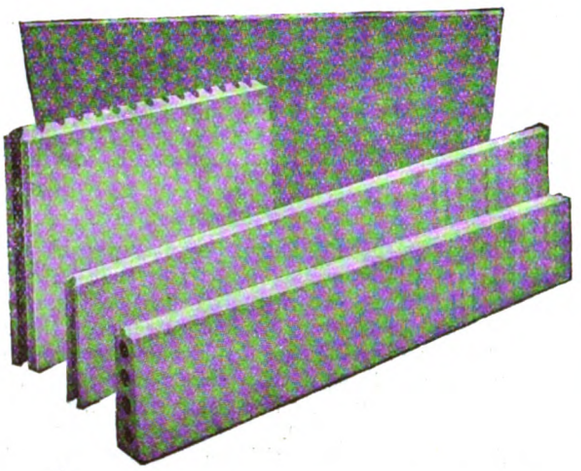
With regard to the new form of contract which the two Institutes in London are trying to arrange, the builders will be very pleased when they can have a model form of contract. The L.C.C. have one at present in which there is the usual retention clause for maintenance. This money they place on deposit at an agreed bank in joint names, and all interest on it is paid to the contractor together with the retention money on satisfactory completion of the work. This might be well adopted to all contracts over a certain figure.

Mr. Minter concluded with a few words on the financial side. The slump in building trades cannot be for want of capital, as instanced by the £2,000,000 local loans that the Government recently issued. The whole amount was subscribed in twenty-four hours. It must be due either to the want of confidence in the existing order of things, or else to the belief of the general public that profiteering is going on. The latter, Mr. Minter denied, and showed what measures he had taken to break up this idea.

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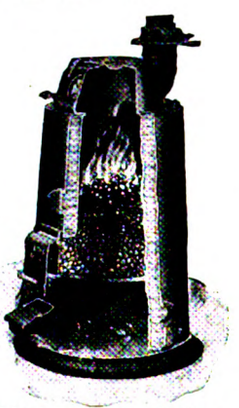
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Quantity Surveyors' Fees for Housing Schemes.

The Ministry of Health have issued to local authorities General Housing Memorandum No. 58, which deals with "Fees payable to quantity surveyors in private practice for the preparation of bills of quantities in connection with State-aided housing schemes."

The terms set out in this memorandum have been settled in agreement with representatives of the Surveyors' Institution and of the Quantity Surveyors' Association and were confirmed at a special meeting of quantity surveying members of the Institution and of members of the Association.

I.—Method of Calculating Fees.

(*a*) For the purpose of calculating fees payable under General Housing Memoranda 4 or 31 or Part II. of this Memorandum the whole scheme of the Local Authority should be taken as the unit (except in cases of the conversion of existing buildings into flats or the erection of block tenements of more than two storeys, when the works, so far as they are on separate sites, will be considered as separate schemes).

(*b*) Where Bills of Quantities have been prepared by more than one surveyor for houses included in a Local Authority's scheme, the total fees payable for all the bills prepared by all the surveyors engaged will be pooled and apportioned *pro rata* between the surveyors. If the amount so apportioned to any surveyor falls short of the minimum fee described in the next paragraph, an extra payment in excess of the general fees payable under General Housing Memoranda 4 or 31 will be made to bring the apportioned fee up to the minimum for that surveyor.

(*c*) The minimum fee referred to in the preceding paragraph will be calculated on the following basis:—

(i.) A fee of 2½ per cent. on the first £5,000 and 2 per cent. thereafter will be assessed on the cost of the houses included in one block of each separate design for which separate and distinct bills have necessarily been prepared by the surveyor in question. Such ordinary variations as are necessary to avoid monotony of appearance or mere change of aspect of larders or the like will not for this purpose be regarded as separate designs.

(ii.) To this fee will be added a further amount of one-eighth per cent. on the cost of the remainder of the houses for which the bills under (i.) have been prepared, provided that all such houses have been included in the approved lay-out of the section of the scheme allotted to the surveyor in question.

II.—Abandoned or Curtailed Schemes.

(*a*) The fees payable under General Housing Memoranda 4 or 31 respectively in respect of quantities prepared in cases in which the houses are not erected or are reduced in number, have been the subject of discussion between the Minister and the representative associations of the profession. As a result of considerable negotiation it has been agreed after full consideration of all points of view that a payment in respect of the abandoned houses of one-half of the fees which would have been payable if the houses had been erected from these quantities would be a fair and equitable settlement of the question both in the public interest and in the interests of the members of the surveying profession.

(*b*) The cost per house for the purpose of determining the fees payable as above should be determined as follows:—

Where contractors have already been let for houses on the same site, the contract price for those houses shall be deemed also to be the contract price for houses of similar types which are abandoned in respect of that site, subject to the following maxima (any excess over the maxima to be ignored):—

	£
Non-parlour type with two bedrooms ...	750
,, ,, three ,, ...	850
Parlour type, three bedrooms	950
,, ,, four ,, ...	1,050

Where no tenders have been accepted for houses on the site, the contract price shall be deemed to be the average price (subject to the maxima referred to in the preceding paragraph) at which contracts were approved by the Minister during the month in which the quantities were prepared (as shown by the date of the quantities). This figure will be supplied by the Ministry on application in such cases.

(*c*) The above arrangements will apply to all houses included in the approved lay-outs or sections thereof so far as complete bills have been prepared on the instructions of the Local Authority from approved plans and specifications.

(*d*) In the event of further houses being erected from these bills of quantities at a later date, the balance of the fees payable shall be the difference between the fees on the tenders then accepted and the amount already paid for those houses.

III.—General.

It is understood that owing to the doubts which have existed in the minds of Local Authorities as to the application of the provisions of General Housing Memoranda Nos. 4 and 31 payments to surveyors have in some cases been delayed.

In view of the further information contained in this Memorandum, Local Authorities will be able to make prompt settlement or substantial payments on account in respect of the amounts payable to their quantity surveyors for the preparation of bills of quantities.

Correspondence.

The "Kent" System of Construction.

To the Editor of The Architect.

Sir,—In these days of house shortage Colonel Kent's design and description of the results of his investigations for cottages and other buildings would seem to supply very clearly, cleverly, and economically a long and much felt want.

I write in no carping spirit, but simply to ask for some further information. Would not the warm jacket provide heat equally for outside as for the inside air?

The facility for easy removal to another site is a great point in favour of the system.

If fireplaces generally are dispensed with, would not one with its own chimney-stack be needed for the discharge of smoke, &c., from the range or cooker?

In the easily followed description of the method I find no mention suggested as to materials for the roof, its hips, and its coverings, nor is there any sign of downpipes or suggestion of a place for reception of water from roof.

The proved absence of vibration from gunfire seems to give strong evidence of the stability of the fabric.

More evidence as to the treatment of foundations, footings, plinths (if any), and damp courses would, I think, be found helpful to possible users of the scheme. That the cottage shown is far removed from ugliness is a comfort to

Yours, &c.,
E. Swinfen Harris.

Stony Stratford,
November 22, 1921.

Mr. Axel Herman Haig, of Southsea, formerly of Grayshurst, Haslemere, Surrey, a well-known etcher, formerly an architect, who died on August 23 last, aged eighty-five, left estate of the gross value of £2,312, with net personalty £2,229.

The annual meeting of the York and East Yorkshire Architectural Society was held in the Royal Station Hotel, York. The chair was taken by Mr. L. Kitchen, F.R.I.B.A., Hull. Mr. A. E. Munby, M.A. Cantab, was unanimously elected president, and Messrs. J. M. Dossor and Stephen Wilkinson vice-presidents. The following members were chosen to serve on the council: Messrs. George Benson, S. Needham, C. H. Channon, A. Pollard, T. W. Whipp, A. B. Burleigh, L. Kitchen, W. S. Walker, J. Ferguson, S. R. Kirby, H. Monkman, F. T. Penty, J. S. Syme, Kenneth Ward, F. Dyer, C. W. C. Needham, and C. C. Elcock. Mr. J. E. Reid was re-elected hon. secretary, and Mr. E. A. Pollard as hon. treasurer. Messrs. S. G. Highmoor and A. Cowman consented to act as hon. auditors. Several new members were elected.

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L.C.C. and Smoke Nuisance.

In view of the heavy fog which for several days past has darkened London, the Chairman of the Public Control Committee made an opportune statement at this week's meeting of the London County Council regarding the Council's powers in the matter of smoke abatement.

Replying to Mr. W. C. Johnson, who drew attention to the suspension of the Council's activities in this direction during and since the war, Sir George Piggot said the question had been before the Public Control Committee on several occasions, and certain definite steps had been taken. Eighteen months ago the practice was recommended of sending to metropolitan borough councils notifications of nuisances observed by the Council's coal officers. As a sequel to these notifications, the borough councils had in several cases instituted legal proceedings. Even municipal electricity generating stations had not been exempt from complaint. It would probably be necessary to take action against two municipalities unless the nuisance were abated.

During the past eighteen months twenty-four prosecutions had been undertaken in connection with road locomotives, and twenty-two convictions obtained.

Owing to Government control over railways, no action had been possible until quite recently in the case of railway locomotives. On October 5 last a final letter of warning was sent to the various railway companies, and, in the case of three serious nuisances reported subsequently, the Committee had authorised legal proceedings.

New Books.

"The American Hospital of the Twentieth Century." By Edward F. Stevens. Revised Edition. New York: The Architectural Record Company.

This treatise on the development of medical institutions, both in Europe and in America, since the beginning of the present century, affords an excellent opportunity for comparing the methods adopted in various countries. Papers read by the author, as well as by others, have reached us from time to time, but comprehensive works dealing with the subject do not hitherto appear to have tempted the American writers. Mr. Stevens mentions that it is not his intention to criticise the plans of the institutions he illustrates, but to present them as various solutions of the great problems of nursing and caring for the sick, and to point out a few of the findings of his own experience in the planning of more than four-score hospitals and institutions. The field, he says, is so broad that it is impossible more than to touch upon the various points. Nevertheless, he has done this so successfully as to make the work of extreme interest to those concerned with the subject. Twelve of the twenty chapters are devoted to the various departments of a hospital, including the special ones for communicable, psychopathic and neurological, and tubercular diseases. There are chapters on the small hospital, the nurses' residence, and the remodelling of a house for a hospital. Last, but by no means least, we mention those on the kitchen and laundry, heating, &c., details of construction and finish and equipment. It is only too rare to find these all-important branches of the subject discussed with such a complete understanding of all requirements and intricacies, as frequently, these matters are dealt with in no more than a cursory manner. Notes on landscape architecture as applied to hospital, and an appendix on war hospitals, complete this valuable contribution to the study of nursing institutions. Inevitably, of course, the English student will find some items which cannot apply in this country. For instance, the American method of entering a w.c. from a bedroom without a ventilated disconnecting lobby strikes one very forcibly, as also does the frequent absence of open fireplaces. Mr. Stevens is to be congratulated on the concise and lucid treatment of his subject, no less than on his choice of the very numerous illustrations. His publishers have done their share towards keeping up the standard of the volume.

"Reinforced Concrete Construction." Part II. By M. T. Cantell, Licentiate R.I.B.A. London: E. and F. N. Spon, Ltd. 16*s.* 9*d.*; abroad, 17*s.* 3*d.*

As we have had occasion to point out before now, a renewed issue of any book stands upon a different plane to the original edition. Its experimental value is as a rule no longer in question, and therefore the call of its public is a matter of satisfaction to both author and publisher. But in its way it is a pity to issue the two parts of one work on a different sized page, Part I. being post octavo, whilst Part II. now appears as demy octavo. The edition now before us gives internal evidence of careful revision, though such revision did not proceed sufficiently far, as on pages 29, 31, and 249 the textual reference in each case should be to page 8 (page 7 having been correct for the previous edition). Mr. Cantell has made an alteration in another direction by partially working many of the equations, before entering them in the text, as, for example (and this is one of many) on page 9, where $144bd^2$ is evolved from $0.2398cbd^2$, c being taken at 600; this procedure is scarcely an improvement upon the earlier edition method. Fig. 11 in portraying the completed reinforcement of a Coignet pile is so indistinct as almost to need the line of description for enlightenment.

We notice the uncertainty amongst writers of such works as this as to the value of the angle of repose of various materials, and even as to the weight per cubic foot; but if there is reason for such uncertainty (that is to say, if, for instance, the angle of repose is to an extent variable) then the limit of variation should always be entered. On page 130 the solution of the first equation should, of course, read as 11.3, without the extension of the radical.

Mr. Cantell has taken advantage of a new edition to add some interesting information (with photographs) concerning the remarkable subsidence which took place in the C.P.R. Company's grain elevator at Transcona, Manitoba. He has also added information upon large conduits under pressure. The reference upon page 216 regarding a visit paid by the Concrete Institute to the Achéres aqueduct, near Paris, is quite out of date as regards its testimony to the present condition of the work executed. An unfortunate error, due to the slipping of type occurs on page 245, 7th line down.

In conclusion we would merely add that, where the general appearance of the book is so satisfying, it is a pity that the index is so scurvily treated in regard to a margin.

Waygood-Otis Club.

The eighteenth annual dinner of the above club, comprised of employees of Waygood-Otis, Ltd., the well-known lift makers, took place on Saturday, the 26th ult., at the London Tavern, Fenchurch Street, when some 130 members gathered together, including several directors of the company. Mr. C. H. J. Day, in taking the chair, expressed the regret felt by all that Mr. H. C. Walker, the chairman of the company and president of the club, had been unable to be with them owing to indisposition. After dinner the usual loyal toast was given with acclamation, and the various toasts following all showed the splendid feeling existing throughout the Company from all ranks of the employees to the directors. A special mention must be made of the musical programme arranged by Mr. B. P. Walker. The Waygood-Otis Quartet made its first appearance, and sang four items with great success. The proceedings came to an end by the singing of the National Anthem and "Auld Lang Syne," and so closed one of the happiest and most enjoyable evenings ever held by the club.

The Court of Appeal on the 23rd ult. ordered the Economic Building Corporation to give security in two sums of £100 for the costs of their appeal in the action brought to restrain John Leaning & Sons from issuing certificates of provisional payments, which the Building Corporation alleged were not in accordance with the contract, by which they agreed to erect 2,000 houses for the Liverpool Corporation at Garston, and to restrain the Liverpool Corporation from acting on such certificates.

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Reasonable Costs.

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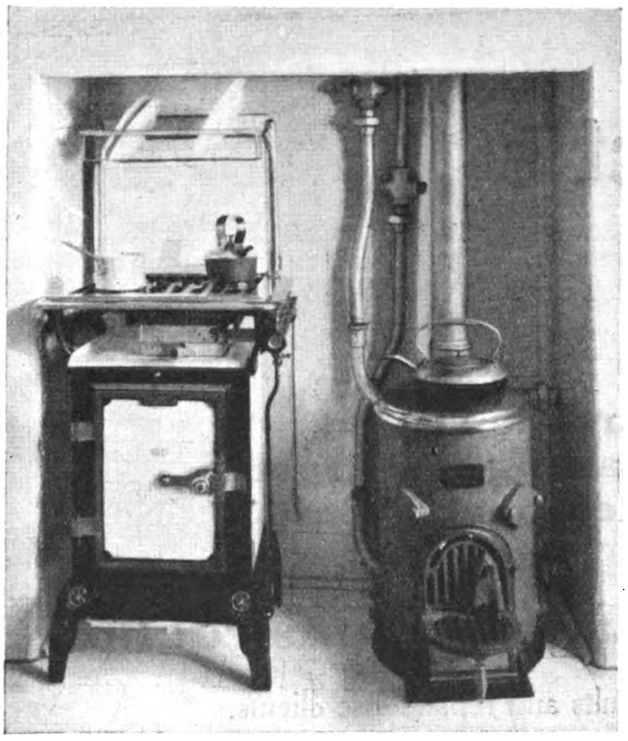
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Advertisement of the Cable Makers' Association, Sardinia House, Sardinia Street, London, W.C. 2, who will give information to Architects.

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A Useful Alliance.



A modern movement, which has economy for its principal object, is the substitution of the kitchen range by a gas-cooker and an independent hot-water boiler. A conversion on these lines is shown herewith. It will be seen that, for the more complicated cooking operations, a gas-cooker of the very latest type is fitted, with a tiled back and a plate-rack (a most useful adjunct for heating plates economically), while for heating the water, warming the kitchen, and simpler cooking operations, a modern independent boiler is used.

It will be observed that, after the removal of the kitchen range, the existing recess has been cemented and laid with glazed tiles. The gas supply to the cooker is brought through the wall at the back, while for the hot-water supply the boiler has been connected to the hot-water system formerly supplied by the kitchen range boiler. For most moderate-sized houses a smaller boiler than that shown would be large enough, but the opportunity is frequently taken of connecting a few radiators to the same boiler, and this has been done in the case of the boiler shown in our illustration. As will be noticed, kettles and pots can be boiled on the top of the boiler, while the front, which incidentally has a large mica window which permits the fire to be seen even when the door is shut, folds down and forms a trivet.

For the information of our readers we should add that the size of the recess in the photograph measures 4 feet 6 inches wide, 5 feet high, and is 1 foot 8 inches deep from back to front. As will be seen, this size of recess very comfortably accommodates the Davis cooker and the "Sentry" boiler which form this installation. Both pieces of apparatus have all bright portions nickel plated, while the smoke pipe and water pipes have been coated with aluminium paint. A specimen installation may be seen at the premises of Messrs. Wood, Russell & Co., engineers and boilermakers, 34 and 36 Oxford Street, W. 1.

General.

The Scottish Board of Health have approved the estimate for the erection of fifty-four additional houses by direct labour at Drumoyne, amounting to £48,043 17s. 6d.

The Chadwick Trustees have presented the Chadwick gold medal and prize to Mr. James Paterson Porter, as the best student in municipal engineering at University College, London.

Messrs. Neil C. Duff and Percival Cairns, architects, 187a West George Street, Glasgow, have prepared plans for a large dancing hall which it is proposed to erect in Victoria Road at Eglinton Toll, Glasgow.

A report issued by Newcastle Housing Committee with regard to houses built on the Walker estate shows an estimated deficit of £30,950 per annum, or £1 0s. 10d. per house per week.

The Thurnscoe Urban District Council have approved of the plans for a new cinema at Thurnscoe, near Penistone. The seating capacity is 750, and the approximate cost will be £10,000. The architect is Mr. Bull, Council Offices, Thurnscoe, near Penistone.

An Industrial Art Exhibition is to be held in the Victoria and Albert Museum in January and February in connection with the scheme to secure closer co-operation between the factory and the art school with a view to encouraging industrial art in British industry.

Mr. J. H. Horniman, A.R.I.B.A., consulting architect to Government, Central Provinces, whose services have been placed at the disposal of the Railway Board, is appointed as architect in connection with the Delhi (New Capital) Railway Works scheme.

Capt. A. M. Hall, architect, Lincoln, has been authorised to get out quantities and obtain tenders for the erection of the Lincoln City War Memorial in St. Benedict's churchyard. The preliminary estimate for the proposed Calvary executed in Ancaster stone is £2,150, exclusive of architect's fees.

What might have been a serious fire but for the promptness of the Byfleet Fire Brigade occurred at Messrs. Tarrant's works in the early hours of the 21st ult. The outbreak was discovered in a shed next to the big engine-house at about 4.45 a.m., and the brigade was immediately summoned.

The Public Health Committee of Edinburgh Town Council last week discussed the question of the housing reconstruction schemes which it is proposed should be carried out by the Corporation. The Committee generally approved of the suggestion that the first of the Corporation's reconstruction schemes should be proceeded with irrespective of the Government grant, and the matter was remitted to a sub-committee.

The Glasgow Town Council resolved last week to proceed with the erection of a new bridge over the Clyde, in line with Oswald Street, and about five hundred yards west of the existing Glasgow Bridge. The object is to relieve congestion of cross-river traffic, and £70,000 is to be paid to the Clyde Trust for the loss of quayage space. The bridge itself may cost up to half-a-million pounds.

The Doncaster Town Council, with the approval of the Ministry of Health, recently obtained tenders for 197 houses on the Carr House site. The Council have now received intimation that no more than sixty are to be built. In addition to the fifty-four houses just completed off Park Lane, Carcroft, near Doncaster, the Bullcroft Colliery Company have contracted for 100 more on the same site.

Work has been commenced by Messrs. Blackett's Construction Co., Ltd., at their Victoria Yard, Thornaby-on-Tees, upon a large contract for the erection of electric car sheds at South Gosforth, Newcastle, for the N.E.R. The buildings, which will include generating-station and boiler-house, will provide accommodation for 120 cars, and it is stated the N.E.R. are altogether spending between £200,000 and £250,000 on the scheme.

The Coal Smoke Abatement Society will hold a Smoke Abatement and Dust Prevention Exhibition at the Royal Agricultural Hall, London, from March 15 to April 8 next. The exhibition will be arranged by an influential council largely composed of the Lord Mayors and Mayors of the manufacturing cities of the country, and of representatives appointed by the learned and technical institutions and other organisations concerned with every aspect of smoke abatement, dust prevention, and ventilation.

A tender has been accepted by the Housing Committee of the L.C.C. for the erection of eighty-three additional houses—forty of five rooms and forty-three of four rooms—to complete the development of the Old Oak estate, Hammersmith. The total expenditure is estimated not to exceed £57,722, which shows a decrease of about 31 per cent. on the prices current a year ago, or an average of about £292 a house. It is estimated that the financial result will be a deficit of about £3,000 a year, or an average of, say, £36 a house.

At the monthly meeting of the Incorporated Church Building Society held at 7 Dean's Yard, Westminster Abbey, on the 17th inst., the Hon. Sir E. P. Thesiger, K.C.B., in the chair, grants were made towards repairing the churches at Dover, Holy Trinity, £50; Finsbury Park, St. Anne, £35; Horton Kirby, St. Mary, Kent, £50; Rimpton, St. Mary, Bath, £25; and Kingsbury Episcopi, St. Martin, Somerset, £60; and towards enlarging Christ Church, Northampton, £150. Grants were also paid for works completed. The sum of £850 was also paid towards repairs to thirty-two other churches. The society is dependent upon voluntary support, and the committee appeals for substantial assistance so that it may more adequately assist all the schemes of church building and repair which come before it.

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The Gap.

We have received an admirable little book, illustrating the work that has been done at Nottingham under the Housing and Town Planning Act. Some of the estates have, like the Sherwood Estate, been laid out and developed under the direction of private architects, while others owe both their lay-out and the individual design of the houses to Mr. Cecil Howitt, D.S.O., A.R.I.B.A., the housing architect whom the Corporation appointed in 1920. The general level of the designs shown are excellent—especially, we are glad to say, those of Mr. Howitt, since he is responsible for all work designed for the last year. The special bungalows he planned, which we illustrated a few weeks ago, are models of well-considered and pleasing composition. But such a publication makes us think again of the gap which unfortunately exists between building as we like to see it done and building as it is usually carried out under the auspices of the smaller men who build for their own requirements or build to sell or rent to workmen. How is this gap to be bridged over? The Socialists would say by the action of the State, but we know this to be both impossible and undesirable. We can see but one alternative method, and that is by the action of municipalities and local bodies, who might secure legislative powers which would give their committees some discretionary powers in the matter of design, while by-laws should secure a fair standard of construction. But, whichever way the impetus is applied, the net result must often be to make a somewhat more costly class of design obligatory, for it must be admitted that, although many architects have both designed simply and well for housing committees, their work usually contains some elements which might be omitted with a reduction of cost were educated men as insensitive to appearances as is the speculative builder and those for whom he has provided. If this question is not solved we shall, sooner or later, see the best of recent housing developments surrounded by a wilderness of tasteless structures, for the smaller speculative builder has an infernal ingenuity in following the wrong lead. He may no longer line the inside of a porch with staring encaustic tiles, for these are expensive; he will no longer give us sheets of undivided glass in windows and doors, for these are unfashionable; but he will damn his newer prototype with the same success as he employed in condemning his earlier models of fifty years ago. If he has the choice between two pitches for a roof, he is absolutely sure to adopt the one which will set our teeth on edge, while he cannot divide a window-sash with bars without hitting on a proportion which should be avoided.

We are, in a word, with regard to the workman's house, between the Scylla of Socialism for which the nation cannot pay and the Charybdis of the uninstructed builder's fancy, and we sometimes think that an able designer should be employed by every municipality to turn out designs which alone the speculator should have the right to build to, or what would even be better in the interests of variety, that municipalities should institute periodical competitions for the selection of such designs. Naturally, we do not expect any country in the world to institute such legislation, but inevitably if something is not done we shall have to suffer the spoilation of whole districts or to face national bankruptcy by being heroic—and foolish. For we are not optimistic enough to believe that the popular taste of the majority will ever be raised to even a moderately high standard, while we are doubtful whether tradition in the old sense can ever be recreated except among a very limited circle.

But the problem of "the gap" does not end with the workman's house, but confronts us in nearly all cases of building except what are termed "luxury buildings." The manufacturer who erects commercial buildings usually has to employ an architect, but that architect has to keep to a very straight and narrow path. Woe betide him if he attempts to persuade his client that a more sightly group can be erected by the expenditure of a little more money. The fact that the most utilitarian expression of the requirements of the case may spoil the appearance of the country for a square mile round will usually be an argument of no avail when urged to a client who probably will and does spend money to beautify his house. The modern tendency of even the cultivated man is to regard the world as a convenient dust-heap, in which he can do as he likes so long as he keeps his own immediate personal surroundings sacred. Mankind, in a word, has, unless it accepts Socialism as a creed, very little personal feeling in the matter of æsthetics, though mankind is naturally always willing to abuse the architect as if he was the *deus ex machina* who can control results and yet carry out orders like a well-conducted man-servant.

We are aware that we are only filling the rôle of the traditional Englishman and grumbling, but the architect, though a down-trodden being, sometimes turns—like a worm, and we get a little tired of being lectured and brought to book by the illustrious layman. For our problem is, in reality, his to solve, and amounts to this: Are we, or are we not, willing to pay for what we see is desirable; and are we, or are we not, to consider our neighbour as well as ourselves?

If we answer these questions in the negative the world, though richer in mechanical contrivances, and perhaps even in health, wealth, and comfort, will become from generation to generation an infinitely less pleasant place to look upon than was the world of our fathers before us.

It is a curious fact, but indubitably true, that mankind in the days when it had the use of little social legislation betrayed a far keener interest in matters affecting the community than now, when we are overburdened with semi-philanthropic legislation, but when the average man is more intent on seeking his immediate objects than ever before. This is our danger and our problem.

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Illustrations.

BURDEN HOUSE, SYOSSET, L.I. DELANO & ALDRICH, Architects.
THE PENNSYLVANIA RAILWAY STATION, NEW YORK. McKIM, MEAD & WHITE, Architects.
HILL AUDITORIUM, UNIVERSITY OF MICHIGAN, ANN. ARBOR., MICH. ALBERT KAHN, Architect
GORHAM COMPANY'S BUILDING, NEW YORK. McKIM, MEAD & WHITE, Architects.
NEW PATHS, SAINT JOHN'S COLLEGE, CAMBRIDGE. A. W. S. CROSS & KENNETH CROSS, Architects.
"THE CONCIERGERIE, PARIS," AND "CITY OF TOWERS." By DONALD SHAW MACLAUGHLAN.

Notes and Comments.

The Bank of England.

Professor Richardson whose versatility is well known and appreciated, sends to "The Times" what he entitles as an "Architectural Phantasy," being a suggestion that the existing design of Soane should be retained as an outer screen for an American skyscraper, which for purposes of illustration he has modelled on the lines of the New York Municipal Buildings. Soane's design, which is endeared to many by association, owes its effect to the fact that the whole composition is a one-storeyed one, and this effect would be lost were a high building erected immediately behind it. Also we imagine that, when the necessity of a higher building is spoken of, what is meant is a building of about eight or nine storeys in height rather than one of double that elevation, and we imagine that if such a scheme is ever proceeded with a component part of it would be the widening of the streets immediately surrounding the Bank, which would involve the entire demolition of Sir John Soane's work. For these reasons we believe Professor Richardson's idea will remain a phantasy, like those we have seen in which the streets of London are shown converted into canals after the manner of Venice—an interesting phantasy, but an impracticable and useless one. London is neither an American town, nor are its requirements those of Venice, which seems to us to mean that phantasies will remain phantasies to all time.

The "Daily Mail" Labour-Saving House.

We have not yet heard how many thousand designs have been received for the "Daily Mail" Labour-saving House, but the multitude of competitors will be interested to learn that the assessors have been appointed. They are Mr. Guy Dawber, Mr. R. W. James, a consulting engineer, and Mr. Bertram Parkes, a well-known architect, whom we understand has travelled all over the world to examine labour-saving apparati. We wonder if this, the latest of the "Daily Mail's" flirtations with matters architectural, will have more pronounced success than its previous efforts, for we have not heard of any momentous improvements which have arisen out of our contemporary's previous competitions. We shall probably hear many home truths, and shall be shown how we can—not without cost—use many things which may save a little labour. We shall be especially interested to see how the various competitors have dealt with the problem of the balustrade, the dusting of which appears to make our contemporary uneasy.

Fees for Abandoned Housing Schemes.

We agree with Mr. Maurice Webb in thinking it is impolitic for architects to exercise too much pressure to secure a modification of the fees for abandoned housing schemes. The whole policy of the Government with respect to housing has been unfortunate, and it is human that they should endeavour to close their operations with as little cost as possible. It is natural that architects who have looked forward to the full completion of schemes on which they have been engaged should be disappointed at their collapse, but the fees agreed upon, reasonable as they were when they were considered as covering an immense amount of detailed supervision, were rather ample if it was considered that the usual proportion of the full fees should be paid for abandoned work, because the architect's design usually consisted in a general lay-out and a few type-designs for the individual buildings. We quite agree with Mr. Webb that housing could not be looked upon as a remunerative branch of architectural practice, and that in a certain sense it must be regarded as work done for the good of the community, so that we hope the committee appointed, while endeavouring to find a reasonable compromise, will not show a disposition to unduly insist on the utmost that persistence can obtain.

The Manchester and District House Builders' Association.

The Manchester and District House Builders' Association have approached the Housing Committee of the Corporation to see if they could induce them to adopt the Small Dwellings Acquisition Act of 1899. They made allusion to the fact that better-class artisans, clerks, and warehousemen would in many cases be able to find £100 or £200 in ready money for the acquisition of their own dwellings if the Corporation could provide capital for repayment and mortgages to enable applicants to acquire and build houses. The Corporation have decided that they cannot, in view of their commitments, adopt the Act, but the Finance Committee are going to recommend the Corporation to make a beginning by making advances to those who wish to acquire their own houses, such advances being limited in the first place to 100 houses. It is further advised that such assistance should be limited to 66.3 per cent. of the cost of houses at the time the loan is made, and that it should in no case exceed £500. Under these limitations it will not, as the subsidy was said would, help the millionaire, but may prove a useful beginning, since one of the greatest securities in this or any other country is an increase in the principle of individual ownership.

The Keystone of Resistance.

Controversy on the subject of the City churches has once more been aroused by the Bishop of London's statement that £500,000 was offered for the site of All Hallows, Lombard Street, the living of which is in the gift of the Dean and Chapter of Canterbury. We are not surprised that the present incumbent, the Bishop of Croydon, is against the sale of the site, but we agree with Viscount Knutsford—who is, in default of ecclesiastical action, to bring in a Bill dealing with the unwanted City churches,—who states "that either the Church must set her house in order or apparently many of the clergy must starve." We say that All Hallows is the "keystone of resistance," because as long as it can be gravely stated such a building should be retained, reason as applied to the question is out of court. We really wonder how many of those who maintain this view have ever been inside All Hallows, and should think very few have done so. To say "see it" is perhaps incorrect, for on the brightest summer day very little can be seen inside the dark and gloomy building; but those who take the trouble to examine it will come to the conclusion that, with the exception of some fine woodwork which can hardly be examined in the dim light, there is nothing worth preservation in what is one of the poorest of the buildings with which Wren's name is associated.

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London Art Galleries.

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A very attractive exhibition was opened last week of the original drawings and paintings by Walter Crane at the Twenty-One Gallery in the Adelphi. Walter Crane was an artist of very high merit, of whom Muther has said with truth that he was "successful in uniting the Pre-Raphaelite conception with a sentiment for beauty formed upon the antique." We see in fact very markedly the Pre-Raphaelite impulse in the oil paintings here, for instance, that of possibly Rossetti and more certainly Burne-Jones in "Love's Sanctuary" or "Sir Galahad," which, however, are by no means the best things here. For meanwhile he had found himself in decorative art, and here he is really individual and great. "Without imitation," says the writer I have just quoted, "he reproduces spontaneously the grace and character of the primitive Florentines. Some of his plates recall the 'Dream of Polifilo,' and might bear the monogram of Giovanni Bellini. . . . They are a Grecian and yet English art, where fancy, like a dreamy child, plays with a brilliant skein of forms and colours."

We find ample justification for this appreciation in the drawings shown here, which are often, e.g., that of "Venus' Looking-glass," so clear that they might deceive us as being reproductions; and what could be more fresh and charming than the whole set—to which this last-named belonged—in colour-wash and line, whose title is, I believe, "Flora's Feast." But I reserve here my highest commendation for the pen-and-ink drawings for illustrations; and more especially the twelve drawings for "The Glittering Plain," published by the Kelmscott Press in 1894, and the thirteen pen-and-ink drawings for headings of Spencer's "Faerie Queen," an edition of the Elizabethan poet which was, I understand, published by George Allen between 1894-96, though I have never been so fortunate as to come across a copy. These little "head-pieces" are perfect of their kind—their drawing clean and faultlessly finished, with the most astonishing ease in treating both the human figure and decorative motives. We have to remember here that these belong to what we may call this artist's "middle period," when his technical mastery was complete: it would be interesting to compare these drawings with his early work, and I believe that this Gallery has in view, possibly later, an exhibition of these earlier studies. We find again Spencer's great poem in the next room illustrated in "Venus' Temple," and the scenes of Guyon and the Palmer passing the Sirens, and Belphoëbe, the lovely huntress, apparently giving a piece of her mind to Bragadocchio. Crane at this time knew the human form artistically and could play with it as he willed: a striking example is his decoration shown here of "Learning," where nude male figures, running, pass on the lighted torch from hand to hand.

Our National Gallery has gained very greatly by the recent changes in decoration and hanging of pictures. The cold glaring white on the walls has given place to a warm grey, which forms an excellent background to the Florentine and Umbrian paintings in Rooms I. and III. I am told by the authorities that the re-arrangement of paintings represents the order in which these schools will, it is hoped, be permanently shown; and under this scheme Room I. serves as a general introduction to Italian painting, commencing with the Florentine and Sienese, Room III. continues with the Umbrians, Piero della Francesca, Signorelli, Melozzo, and Perugino, while Room XXIX. is dominated by the masters of the full Renaissance, Correggio and Michelangelo.

The Lombard masters, arranged in Room V., form a connecting link with the Venetian School, to which the two large Galleries VI. and VII. will be given up; but I am given to understand that these two Galleries are still in the hands of the Office of Works, and will not be open to the public before next spring. We have, however, plenty to occupy us in the meantime in the five preceding rooms, especially in Room I., with Paolo Uccello's fine battlepiece, Spinello's "Fall of the Rebel Angels," a fresco fragment magnificent in its swing of movement and sweep of handling, with beneath it, in delightful contrast, Fra Angelico's exquisitely detailed celestial vision of Christ surrounded by angels and the blessed. I may note here, in connection with the "Virgin and Child with angels" under Duccio di Buoninsegna on the same wall, that the Gallery authorities seem now to accept the attribution to Duccio of the famous (so-called) Cimabue "Virgin" in Sta. Maria Novella at Florence. Years ago (in Part I. of my "Renaissance in Italian Art," published 1902) I put forward this attribution, in which I was assisted greatly in the documentary evidence by my late friend the Rev. J. Wood Brown, and it is some satisfaction to find that, after nearly twenty years, it is at length gaining recognition. Actually I still consider the best piece of picture-hanging and arrangement here is Room VIII., with the great Raphael Madonna piece, flanked by those magnificently decorative Crivellis.

I noticed last week, as coming on, the memorial exhibition at the Leicester Galleries of the work of the late Claude Lovat Fraser, the brilliant designer of the setting of "The Beggar's Opera." This exhibition, opened last Friday, has proved to be of very exceptional interest, filling all the space available in these Galleries. Lovat Fraser appears here as a great decorator and a fine creative artist. "He loved the theatre" (it has been said of him by Gordon Craig), "and there are few artists to-day who are so sworn to its support as he was; for he put no consideration above it." One of the most successful productions in which he was concerned, though not the first, was that of "The Beggar's Opera," that classic of the eighteenth century, revived at the Lyric Theatre in June 1920. I take it that he designed the whole of the costumes and setting for this most successful production; and there followed his "Nursery Rhymes Ballet" for Mme. Karsavina, and Lord Dunsany's "If," Mr. John Drinkwater's "Mary Stuart" being yet to be produced. Nearly all these productions find illustration in this very complete exhibition, the costume drawings boldly carried through with a fine sense for colour schemes, while the little Theatre models, for the productions just mentioned, are very interesting, and not to be overlooked are the occasional figure studies, treated in pure line. His fecundity of creative art was wonderful, for outside the theatre he was designing book illustrations, textiles, posters, and architecture. The last drawing he made before his death in last June, at the age of thirty-one, was of Ivychurch, Romney Marsh.

At Walker's Galleries, also on Friday last, was opened an exhibition of drawings and water colours of Spain by Mr. Hanslip Fletcher and Mr. Kenneth Hobson. Mr. Fletcher's work will be well known to many among my readers, but what impressed me especially in this exhibition was its wonderful delicacy, as well as accuracy of detail. Take, for instance, his fine drawing here of the famous Giralda tower of Seville Cathedral, which the artist himself told me he considered the best of his work now being shown. This is drawn in pen line—for, as he said, he felt he could not lose any part of the exquisite detail—with a slight colour wash; he even refrained from the blue of the sky, and was glad afterwards that he had done so. Other drawings of his which I liked particularly here are his bridge of the Alcantara at Toledo in colour wash, his Burgos Cathedral in soft pencil outline, his exquisitely detailed Plaza Zocodover at Toledo.

Mr. Kenneth Hobson's pencil and colour drawings, also of Spain, bear the test of comparison (and this is a very high compliment) with Mr. Fletcher's work on the same walls. I consider this young artist has very great talent and a future before him. I am obliged to leave till next week the really magnificent memorial exhibition of the late William Strang, R.A., opened also on Friday last at the galleries of the Fine Art Society.

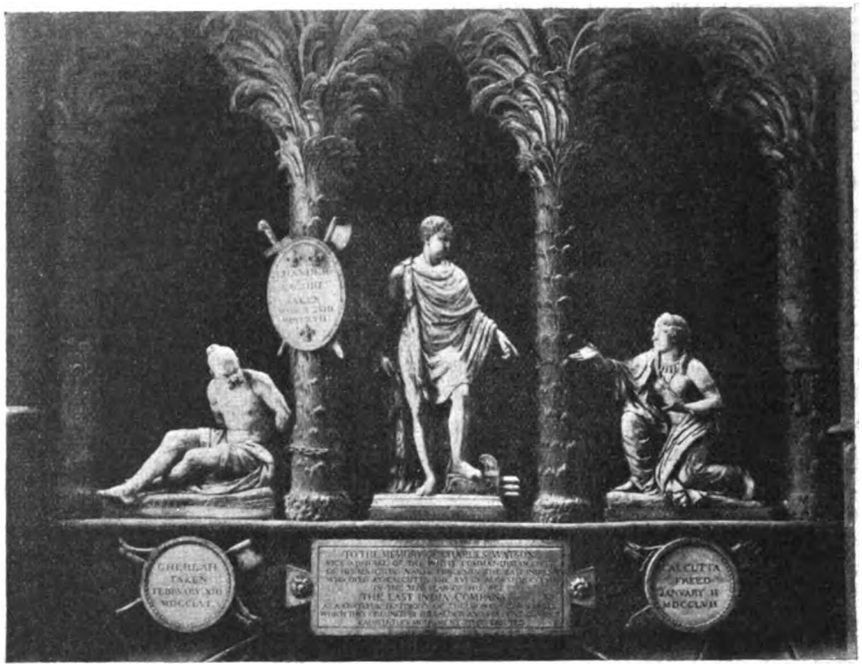
S. B.

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Studies of the English Sculptors from Pierce to Chantrey.

VIII.—Peter Scheemaker* (1690-1771 ?).

(*All Rights Reserved.*)



MONUMENT TO ADMIRAL WATSON, WESTMINSTER ABBEY. By SCHEEMAKER.

Among the Vertue MSS. in the British Museum is a volume with an inscription by the author: "1741. My desire is that this particular book of Memoranda of living Artists markt A f [containing Vertue's candid opinions and recollections of the artists of his day from September 1722 to December 1738] at my death be immediately ty'd about with string seal'd up till the year 1772 or fifty years after my death," an injunction which Walpole, who bought his MSS., scrupulously observed. The last volume of the "Anecdotes of Painting" came out in 1780, but the fifty years had not expired, and he clearly felt himself bound not to use the material which he had at hand. How unnecessary it is to say with a modern writer that Vertue, and therefore Walpole, "omitted his name altogether from their collections," the following pages will show; meanwhile, we may note that even in the "Anecdotes" Walpole refers with enthusiasm to the works of Scheemaker, and when we find the mass of evidence in the sealed book which Walpole's sense of honour would not allow him to make use of, we can only respect his scruples and be glad that the material, though never used, is still available. The Notebook, which is unusually incoherent and badly spelt, is as valuable for Rysbrack as for Scheemaker, and unless otherwise attributed, everything here printed in inverted commas comes from this volume. It concludes with these remarkable words: "December, 1738. I think I may finish these observations with this remark. Whatever advancement the Art of painting has made in England since I have taken notice of it, is neither getting nor looseing, that is, instead of Sr Godfrey Kneller who then stood paramount, now we have several painters [in the margin appear the names "Hymore, Vanlo" and others] who draw and Colour masterly, whereas about that time he only did surmount, tho' of those that now are he had something superior but as to sculpture that has of late years made greater advances, in many great and rare works of several hands,—masters—also in the art of print Engraving or Sculpture—there are now Six to one really good masters [in the margin are the names of Scotin and others] which was not when I first sett out, 1709. Finis." Against the remark on Sculpture are written the names of "Rysbrack, Schemakr and Rubillak," and it is therefore to those three masters that the best judge of our time attributed the great advance in English sculpture.

This Notebook fixes in the first place the date of Scheemaker's birth, which has not hitherto been known. Under date 1730 we read, "Mr. Schemaker is now about 40 years of age, a man of the small size," and in the margin is scrawled "born 1690." A slightly later entry informs us: "The Father of the Scheemakers Statuarys† here was a famous Sculptor at Antwerp. They are both little men. As art flourishes more in London now than probably it has done 50 or 60 years before—in numbers of artists and works done, which in a great manner is owing to the peaceful times and travailling thro' Europe, Italy or Rome &c.

"But one little remark: I observe the most elevated men in Art here are the least of Stature particularly, Mr. Zinke Enameller; Mr. Hogarth Painter, born in the Parish of St. Bartholomew, London; Mr. P. Scheemaker sculptor, and his brother less [five other artists]; these Gent. are five foot, more or less." In August 1729 Scheemaker, we learn, "with Mr. Angellis and Mr. Delvo [Delvaux] left England with intention to go to Rome and Visit Italy with the varities and to form and improve their Studies, in their several branches of Art. Delvo and Schemaker are in Statuary or Sculpture, both near equally excellent, at their first coming to England they workt for Plumière Statuary afterwards for a small time for Mr. Bird." Ten pages further on we read under date 1729-30; "Mr. Schemaker Statuary who was in Italy with Mr. Delvo Statuary and Mr. Angelis painter. . . . [?] Delvo they left at Rome were [*sic*] he is well imployed aged about 40. Mr. Schemaker is something less, these two years he returned to England haveing been very assiduous in his Studies in Rome &c, after the best antique Statues, making of most exact and correct moddels in Clay and some two or three Statues in marble coppied from the antique statues.

"The number of Models busts &c. so neatly, curiously finisht besides other works shows his great application to Study which, in some Measure surpriz'd the Italian Sculptors and other artists from England who do not usually use so much diligence in their studyes nowadayes. Amongst the number of these models I well remember the Faunus and Young Bacchus, the Centaur with Cupid on his back, the Venus crouching, the Venus and cockleshell, the Gladiator, the Flora,‡ and the Ceres—the Hermaprodite [*sic*] and a woman and one groupe they well deserve to be made of a more durable matter than Clay, the Laocoon and some Busts: the Sphinx and Lyons on an Egyptian statue; one of Fiammigo as fine as the antique &c. 18 or twenty statues thus moddeld besides other things—after stricht [*sic*] examination of these models some so soft and fleshy, others a fine spirit and true antique tast—I am perswaded no one

* The name is variously spelt, but as in the Sale Catalogues prepared under the sculptor's direction, and containing a personal appeal to the nobility and gentry, the final "s" is dropped, this form is to be preferred.

† This is incorrect, the younger brother was a painter, as Vertue afterwards discovered.

‡ His model for this, as I hope to show in detail elsewhere, is in the Soane Museum.

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BRONZE STATUE OF EDWARD VI., ST. THOMAS'S HOSPITAL. By SCHEEMAKER.

master heretofore hath brought so many complete works in that perfection of their own studies into England. Therefore I may justly think that Mr. Bird Mr. Rysbrak and this Mr. Schemaker—will better support the reputation of that Art of Sculpture than it hath been heretofore."

We may now leave Vertue for a moment and turn to J. T. Smith, who, as Nollekens' biographer, was naturally interested in Nollekens' master Scheemaker. It is in his pages that Mrs. Scheemaker makes her sole appearance by observing that "little Joey [Nollekens] was so honest she could always trust him to stone the raisins," and by "sending him one washing day, when the maids were busy, to fetch a pot of porter." Nollekens informed Smith that Scheemaker "walked from Antwerp to Denmark, where he worked as a journeyman and fell on evil days," being reduced to selling his shirts; that he then walked to Rome about 1700; that he returned to England after a short visit and walked to England, where he found work with Bird and Plumière and with his fellow-countryman Delvaux; that he went to Rome again with Delvaux and Peter Angelis, where he remained longer, making numerous small models from most of the celebrated antiques, which he brought to England; that he visited Antwerp on his return journey, and brought with him "several roots of broccoli; a dish till then little known in perfection in England." He then set up as a sculptor in Old Palace Yard, Westminster, in the premises later occupied by his pupil Sir Henry Cheere; moved to Vine Street, Piccadilly in 1741; and finally, in 1769, removed to Antwerp, where he died the following year, so fat that when he was kneeling down to say his prayers, he placed his legs under him with his hands.

This account is untrustworthy in several points: 1700 is probably a mistake for 1710, as we have seen that Scheemaker was only ten in the former year; and the unimpeachable evidence of his own sale catalogues shows, as we shall see, that he was in England, and working, as late as 1771. These sale catalogues are three in number:

A.

December 10, 1755, "the genuine, entire and curious collection of prints and drawings, bound and unbound, of Mr. Peter Scheemaker, of Vine Street, Piccadilly, Statuary, (who intends to retire from business)." These comprised prints after the great masters and a few original drawings, after Fiamingo, Veronese, Salvator Rosa and others.

B.

Clearly the decision to retire from business was unfulfilled, since next year we find Scheemaker holding a much more important sale, and on March 10 and 11, 1756, informing his patrons at the bottom of the title page of his sale catalogue that he was, though about to move, still open to commissions. "Mr. Scheemaker begs leave to acquaint the Nobility and Gentry, that at Michaelmas next he shall remove to Isleworth for the Benefit of his Health, and settle there, where he shall be at all Times glad to be favour'd with their Commands."

C.

This is a much more important sale, as we shall see, but if Scheemaker ever went to Isleworth he did not give up his premises in Vine Street, since in the third sale catalogue on May 8, 1771, a year after he is always said to have died, we read of "Mr. Peter Scheemaker, of Vine Street, Piccadilly, Statuary, Retiring from Business."

There may be truth in Nollekens' statement that Scheemaker retired to Antwerp, since his death is apparently not recorded in the Gentleman's Magazine, and it is likely therefore that he was not in England. Nollekens was always shaky about dates, and we shall not be far wrong if we assume that the return to Antwerp was late in 1771, and that Scheemaker's death took place not long afterwards.

How inadequate Nollekens was as an authority on his old master appears from the very few works he could name in London; we have re-arranged them in chonological order as follows:—

1. Dr. Chamberlen's monument in Westminster Abbey, as to which Vertue has two notes, "Mr. Scheemaker has begun a model for a monument of Dr. Chamberlain [*sic*] which I doubt not will be well esteem'd when finisht." While he was at home, had made two small statues in marble which are in posses: of Sir John Eyles, 1730. Mr. Schemaker is now about forty years of age, [note in margin, "born 1790"], a man of the small size." Later, under August, 1731, we read:—"Sett up—a mont in Westminster Abbey, to Dr. Hugo Chamberlen—one figure represents ye Goddesses of health—cup and Serpent—Gratitude, Lyon and Eagle on a shield. Petr Scheemaker and Laur. Delvaux, one of the standing figures of Delvo [*sic*], the other and ye Statue of ye Dr. by Scheemaker. The same names as ar on the Mont of the late Duke of Buckingham in the Abbey."

2. The bronze statue of Guy at Guy's Hospital.

3. The bronze statue of Edward VI. in St. Thomas's Hospital, of which Vertue notes "1739, Septr. ye statue of K. Edwd. 6 erected on a pedestal in the Middle of the Square or quadrangle of St. Thomas' hospital in Southwark. 500 pounds left by will of Mr. [Joy] who was of the Southsea Directors and governers of this hospital 1720 and dy'd about 14 years afterwards. This Statue is the work of Mr. Peter Sheemaker of Westminster an excellent Artist, and was principally modelld from the picture of that King at Kensington painted by H. Holben. Ye attitude of the Statue and gracefull disposition of the limbs is judiciously done and meritts great applause."

4. The statue of Sir John Barnard in the Royal Exchange. [Date uncertain: Barnard did not die till 1764.]

5. The statues in the East India House of Admiral Pocock, Major-General Laurence and Lord Clive, on which last Nollekens himself worked just before he went

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to Italy. All these three were, it is said, in Roman costume, and put up in or about 1760.

It is odd that Nollekens did not even mention Scheemaker's Shakespeare in Westminster Abbey; it is also remarkable that Smith, who knew his London so well, in drawing up this very imperfect list of Scheemaker's works in London, did not apparently know that the sculptor also did a model for the carvings on the Mansion House. Vertue (B 4) quotes from the "Daily Post," March, 1744: "The Pediment of the Mansion House of the Lord Mayor of London being now ready to be carved with Emblems, as they are expressed in the following lines:

> Great Shakespears Statuary's skill is shown
> In living Sculpture & [the] figured stone,
> on each bold figure almost life bestows
> and each beholder's heart with rapture glows,
> Postures unforced his Chisel does command,
> and Nature seems obedient to his hand."

On the same page Vertue adds a curious comment "On the Carving of the Pediment of the Mansion House, Ld Mayors, that sort of puff beforehand [i.e., the verses just quoted] for Scheemakes did not take effect, for altho' he made a moddel so did others—a design by Rysbrack, and design *Gravelot* and *Sheers* and Rubillac—all these foreigners were oppos'd by . . . Carter a young Englishman Cittizen and Son of a Mason—this young man had been in Italy about a year or two and his interest being strong, when the Common Councill of the Citty put it to the Vote amongst them—they had 8 in ten for their Country Man and a Cittizen. When the Committee offerd to Mr. Scheemaker to make a Moddel a New, in opposition to Carter (he answerd) he was not under the necessity to turn prize fighter—he thought he had done work enough to show his meritt." [Note in margin: "This pediment carvd finisht & open in Decembr 1745."] Done work enough to show his merit he certainly had, as we shall see from the list of his works here given, from which we shall find that the Mansion House affair was almost the only set-back to his professional success.

Earlier than any of the works given by Nollekens is No. 6, the belated monument to Monck Duke of Albemarle in Westminster Abbey, erected by the Granvilles in 1723. This great pyramidal structure with a *columna rostrata* in the background in allusion to his naval victories, represents Monck in full armour, not, for once, *à l'antique*, with a female figure weeping over the medallion of his son Christopher, the base being adorned with palms and warlike emblems. The chief interest of the work lies in the contrast between the comparatively realistic figure of Monck and the curious weeping woman, which suggests the translation of an allegorical portrait by Lely into stone, and is altogether earlier in manner than most of the sculptor's work.

7. Monument to John Sheffield, Duke of Buckingham, in the habit of a Roman warrior, reclining on an altar tomb with a weeping woman at his feet. Above is a figure of Time sculptured by Delvaux, an excellent work in the French taste, carrying medallion portraits of the Buckingham children. There is a sketch of this monument by Scheemaker in the Soane Museum.

8. Monument of Admiral Sir Charles Wager (ob. 1743), a poor and clumsy work, with a good bas-relief representing the capture of the Spanish galleons in the West Indies.

9. Tablet to Admiral Sir John Balchen (ob. 1744).

As to these monuments, Vertue has a note elsewhere (B 4) under 1744: "In the Advertiser 3 Monuments down to be executed for three Admirals at one time—the first remarkable Instance of Sculpture employment. This for Mr. Scheemaker." Vertue, that is, was struck with these as the earliest monuments to public servants in Westminster Abbey; who the third Admiral was we have been unable to discover, as the monument to Watson is of much later date. It shall, however, be placed here for the sake of its subject.



MONUMENT TO COLONEL KIRKE, WESTMINSTER ABBEY. By Scheemaker.

10. Monument to Admiral Sir Charles Watson (ob. 1757) with its palm trees and Indian figures ingeniously adapted to the old arcading, executed from the designs of "Athenian" Stuart, and the only surviving example of Scheemaker's work for the East India Company.

(*To be continued.*)

For preceding articles of this series see:—Introductory Article, July 1; Nicholas Stone (1587-1647), July 8; Edward Pierce (ob. 1698), Sept. 2; Caius Gabriel Cibber (1630-1700), Sept. 16; Grinling Gibbons (1648-1721), Sept. 30; John Bushnell (d. 1701), Oct. 7; Francis Bird (1667-1731), Oct. 21.

Forthcoming Events.

Friday, December 9.—The London Society. Meeting at the Royal Society of Arts, Adelphi, W.C. Paper by Mr. C. H. Grinling entitled "The Heights around London." 4.30 p.m.

— The London Society. Dinner at the Hôtel Cecil. Professor Stephen Leacock will give his "Impressions of London." 7.45 p.m.

— Town Planning Institute. Meeting at 92 Victoria Street, Westminster, S.W. Papers by Messrs. W. R. Davidge, F.S.I., and E. W. Turner, Lic.R.I.B.A., entitled "Town Planning for Emergency Works." 6 p.m.

Saturday, December 10.—Royal Academy. Distribution of prizes to the students by Sir Aston Webb, P.R.A. 9 p.m.

December 13-14-15.—Architectural Association. Performances at 34-35 Bedford Square, W.C., of the pantomime entitled "Bilj." 8 p.m.

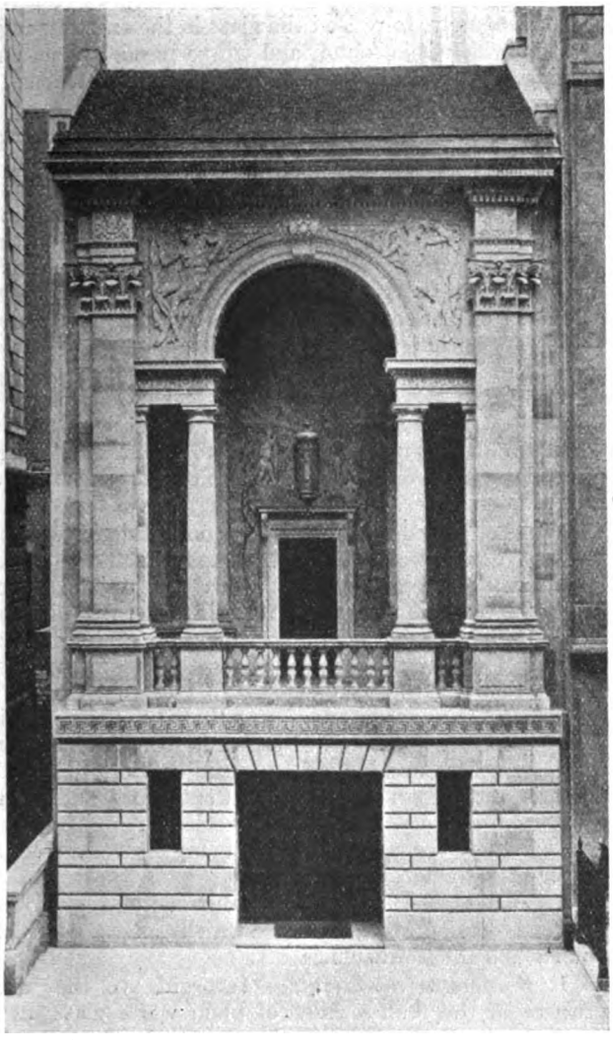
Tuesday, December 13.—Institution of Civil Engineers. Meeting at Great George Street, Westminster. Papers by Mr. Ernest Latham, M.Inst.C.E., entitled "Deep-Water Quays: General Consideration of Design," and by Mr. F. E. Wentworth-Shields, O.B.E., M.Inst.C.E., entitled "On the Stability of Deep-Water Quay Walls." 6 p.m.

Wednesday, December 14.—Trades Training Schools. Distribution of prizes by Mr. Harold Cox at Carpenters' Hall, London Wall. 7.45 p.m.

Thursday, December 15.—Architectural Association. Performance at 34-35 Bedford Square, W.C., of the pantomime "Bilj." 3 p.m.

— Concrete Institute. Meeting at 296 Vauxhall Bridge Road, Westminster, S.W. Papers by Mr. E. F. Sargeant, A.M.Inst.C.E., &c., entitled (a) "The Preparation of Concrete Aggregates" and (b) "Moving Forms." 7.30 p.m.

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ART GALLERY. THOMAS F. RYAN, N.Y.
CARRÈRE & HASTINGS, Architects.
(From the R.I.B.A. Exhibition of American Architecture.)

Competition News.

The City of Truro War Memorial Committee invite applications from artists willing to submit designs for a memorial to be erected at a cost not exceeding £1,000. Particulars can be obtained from the Town Clerk.

Members and Licentiates of the Royal Institute of British Architects must not take part in the Tottenham War Memorial competition, because the conditions are not in accordance with the published regulations of the Royal Institute for architectural competitions.

Sir Reginald Blomfield, R.A., the assessor, has made his award in the local competition for the first instalment of the Birmingham War Memorial. The first premium of £500 goes to Messrs. S. N. Cooke and W. N. Twist, Queen's College; the second premium, £300, to Mr. Edwin F. Reynolds, Colmore Row; and the third premium, £200, to Messrs. Underhill and Hobbiss, Newhall Street. Thirty-two designs were submitted. The Memorial Committee, at a meeting on the 5th inst., gave authority for the work to be placed in the hands of the successful architects, subject to any modifications on the advice of Sir Reginald Blomfield, the assessor. The Building Sub-Committee were also authorised to arrange for possession of the site in Broad Street, with a view to clearing away the old buildings and preparing for the erection of the Hall of Memory. The Committee will be in possession of the site by the end of March.

A water-supply scheme is to be carried out by the Whitehaven Rural District Council and the Harrington Urban District Council, Cumberland, at a cost of £48,000. The water supply will be transferred from springs at Lamplugh, Ousen, and Mosser Fells, by gravitation to three reservoirs, and there will be about fourteen miles of water mains. The engineers, Messrs. H. Taylor and Wallin, Pilgrim Street, Newcastle, have been instructed to proceed with the scheme immediately.

Correspondence.

"Ironite" Brand Cements and Iron Portland Cement.

To the Editor of THE ARCHITECT.

SIR,—The prominence now being given to the investigations of "Iron" Portland cement prompts us to call the attention of the readers of THE ARCHITECT to the fact that the only similarity between the above products is in the name.

"Iron" Portland cement is neither an iron cement nor a Portland cement, but is prepared from the waste product of the blast-furnace—viz., slag—and we consider it unfortunately named.

"Ironite" brand cement (flooring) is a distinctive product, a metallic intensifying matrix which is added to good Portland cement and closes all voids, and gives the surface a dense, tough, and wear-resisting finish. "Ironite" brand cement (waterproofing) is a specially prepared compound with a chemical and mechanical action for use without Portland cement as a waterproofing for coating buildings.

We think it will be agreed that the almost universal use of "Ironite" brand cements justifies this endeavour to avoid confusion, especially as we are the owners of the registered trade-mark "Ironite."—Yours, &c.,

p.p. The Ironite Co., Ltd.,
SAML. C. F. VINES (Director).

9 & 11 Old Queen Street, Westminster, S.W. 1.

The "Kent" System of Construction.

To the Editor of THE ARCHITECT.

SIR,—With reference to the letter from Mr. E. Swinfen Harris in your issue of December 2, there is no doubt that a certain amount of heat will escape through the outer skin of the wall to the air, but the cold will not be able to penetrate through the wall into the house. By making the outer slabs of a non-conducting material very little heat will escape that way.

One chimney at least is necessary for the "mural-heating" apparatus—a stove that will consume refuse—and if a coal cooking-stove is used a chimney for that also is needed. Probably in this country most people will insist on having a fireplace in the living-room or parlour, as they "like the look of it."

The question of the roof does not come into the "Kent" patents, but either a flat or a pitch roof can be used, and ordinary rainwater downpipes and gutters.

Detail drawings of foundations, plinth courses, &c., can be obtained from the inventor.—Yours, &c.,

H. V. KENT, C.B., M.I.C.E.

19 Hanover Square, W. 1.
December 3, 1921.

"The Architect" Fifty Years Ago.

DECEMBER 9, 1871.

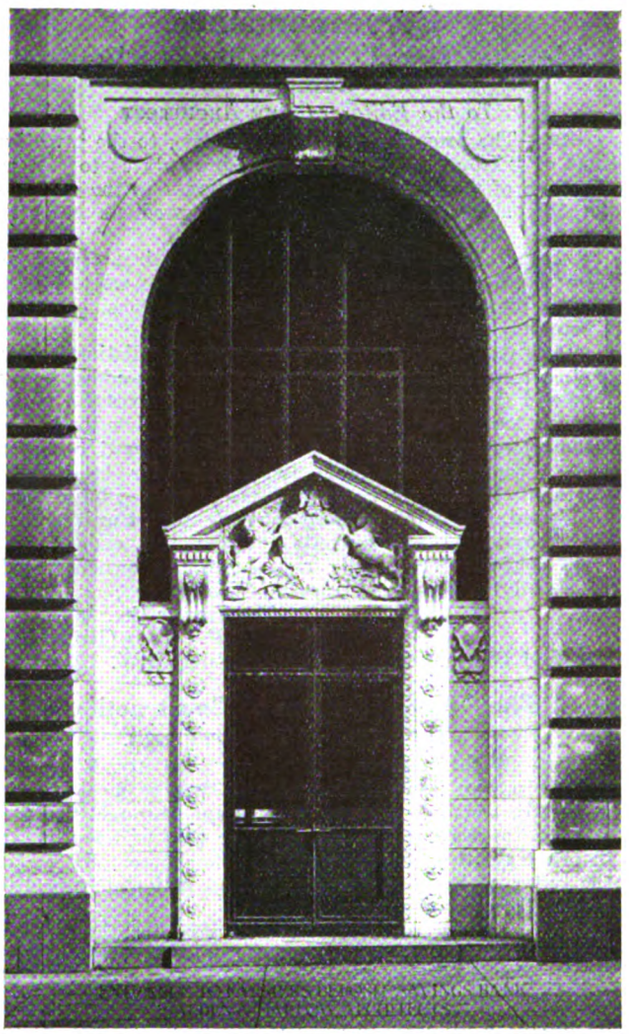
THE COLOSSEUM, REGENT'S PARK.

THE Colosseum, which has been standing and falling to decay for so many years, has at last found a use,—to supply an institution which is much required in England generally, but more especially in London, and that is a complete suite of baths of all kinds. The building will provide ample accommodation for most sumptuous Turkish baths, immense swimming baths of sea and fresh water, and suites of most elegant and commodious private and medicated baths of every description. The surplus space of the plot of land—for the Colosseum buildings extend over two acres, stretching from Albany Street to the Regent's Park—will be laid out as a winter garden, and the block of buildings facing Albany Street will be partly rebuilt and converted into club chambers.

This will be the work of a company called the Colosseum Spa Company Limited, and will be one of the grandest schemes in London.

The character of the buildings will be Moorish, and the cooling-room of the Turkish bath, which will be under the celebrated dome, will be one of the most magnificent in the world. The exterior will be very fanciful in character: the alterations to the existing buildings, and the effect of the handsome mosques and kiosks in the winter gardens, will greatly add to the general effect. The plans have been designed and prepared by Mr. Walter Emden, Architect, of 8 Adam Street, Strand, W.C., who has built some of our latest theatres.

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ENTRANCE, SAVINGS BANK, PITTSBURGH, PA.
ALDEN & HARLOW, Architects.
(From the R.I.B.A. Exhibition of American Architecture.)

York Minster Windows.

The General Committee of the York Minster Windows Preservation Fund recently appointed an outside Expert Committee to examine the work already carried out and to report any observations arrived at. A visit was paid to the Minster on September 16, and the following report was subsequently sent to the Dean. It is signed by Messrs. M. R. James, F. W. Troup, G. P. Hutchinson, Noel Heaton, and A. R. Powys:—The principle of having the glass repaired on the spot and under the direct control of the responsible authorities cannot fail to meet with the cordial support of all who are disinterestedly anxious to assist the authorities in the colossal task with which they are faced; it cannot fail to secure the support of those who realise the many difficulties that have to be contended with. The general lines on which the work is carried out are in accordance with the description given in the "appeal" of 1920, page 5. After careful examination of the method we are convinced that it is, in principle, the only practicable method of dealing with the problem.

It has been suggested that advantage should be taken of the opportunity afforded during the repair to rearrange the glass in accordance with the original design where it had been disturbed by accident or restoration of an earlier date. On detailed inspection, and after discussing the matter on the spot, we are satisfied that the attempt to do so would result in harm. There is not at York the same need for rearrangement as there was, for example, at Great Malvern, where transferences of panels from one window to another had so often been made in the last century that much of the old glass was not in its original position. With regard to this matter, therefore, we cannot suggest any improvement on the method adopted at York, namely, to re-lead the glass in the exact arrangement in which it is found, and where pieces are actually missing, to fill the holes with plain glass, matted, so as to harmonise with the general design.

On the question of protecting the glass from external harm, the method in use is that of erecting a screen of plain quarries outside the old glazing and at a distance of a few inches from it. There is much to be said both for and against this practice, but we are of opinion that the balance of evidence is in favour of it. We would offer the suggestion, however, that it would be an advantage, especially on the south side, to leave openings in the clear border of the internal glazing at the top and bottom of each light. (These openings should be filled with copper wire gauze to keep out insects; this gauze may be set in the lead as the glass is.) The object of this is to provide ventilation between the glasses and to minimise the effect of condensation produced by changes of temperature in an unventilated space.

We should like to add to the recommendations an expression of appreciation of the steps which we understand are now being taken to utilise this unique opportunity of obtaining detailed records of these historic windows by means of photographs of each separate square. The value of such records to all students of glass, and particularly to those engaged in research, cannot be exaggerated, and we are confident that if the opportunity is taken to secure records of the same completeness and scale as those undertaken (in conjunction with the Victoria and Albert Museum) at Canterbury and Westminster, they will fully justify the labour and expense, and will also, by their sale, probably prove an actual source of revenue.

We make the following recommendations as to the practical details of the work, which affect both the quality and the permanence of it:—

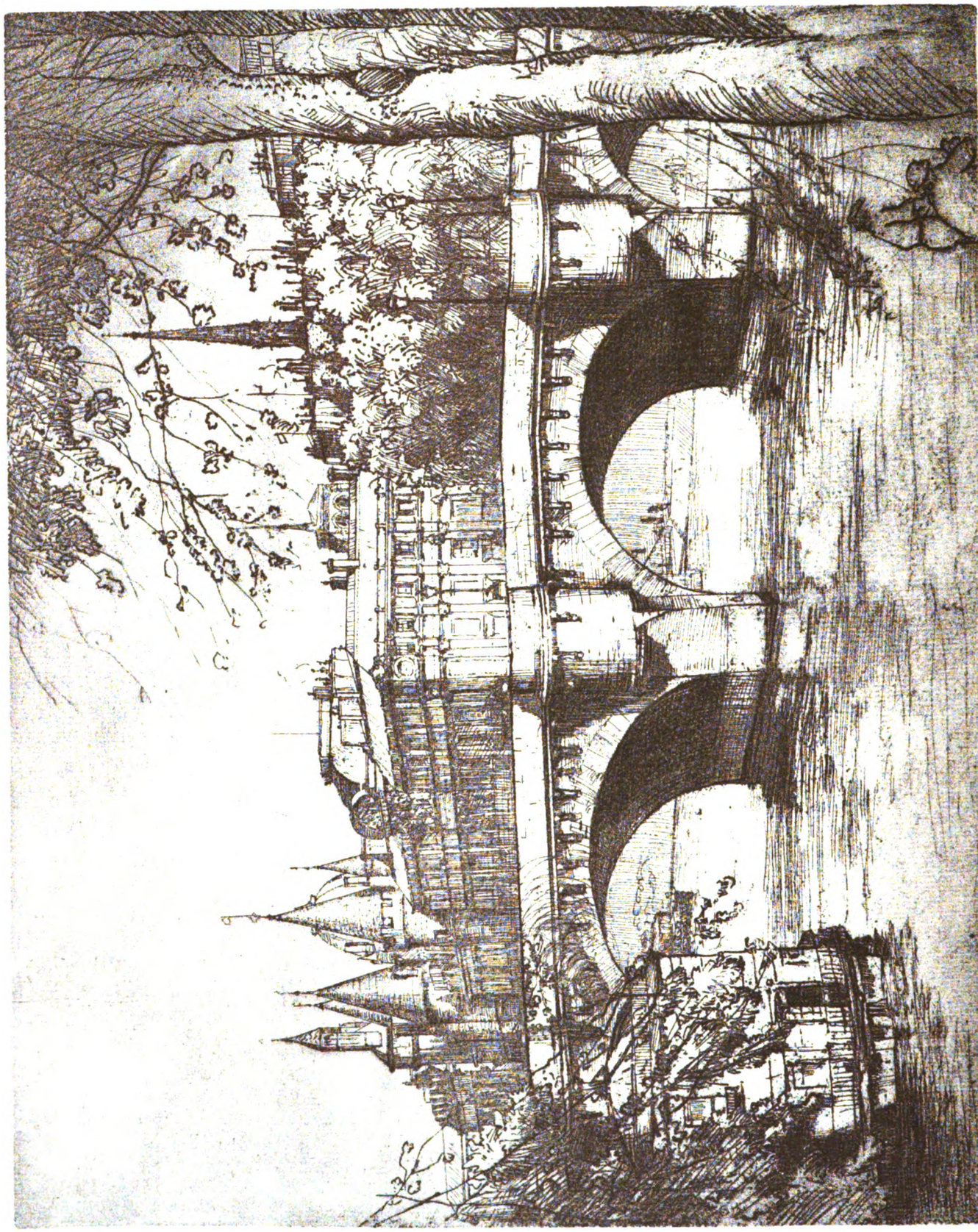
1. *Borders to the Lights.*—According to the usual practice of the craft a fillet of plain white glass in all cases surrounds the design of the window, forming a narrow border between it and the stonework. This fulfils the double purpose of outlining the stone tracery, and, so to speak, framing the darker coloured glass of the window, and at the same time facilitates the removal of the panels (by sacrificing the plain border) without injury to either the decorated glass or the stonework of the tracery. In ancient times the border was of the same imperfectly transparent glass as the substance of the window, and harmonised with it. In those windows already repaired clear sheet glass has been used for this purpose, which has the effect of being aggressively brilliant, distracting attention from the design. We would recommend that in future a rather deep greenish antique white, fired with a slightly matted and rubbed surface, might be used. As an illustration of what we mean we would cite the south-east window of St. Denys, Walmgate. This was taken out and re-leaded about 1895, and glass of the character we indicate was used for the new border. This is perfectly harmonious with the design. We would make the further recommendation in regard to the windows already executed. The dazzling white border would be improved by lightly stippling the plain glass of which it is made with oil paint to reduce its transparency. This might at first be tried as an experiment on one light in one of the less important windows (such as in the vestibule of the Chapter House); the paint could readily be removed or modified without injury to the glass if the result is found disagreeable. We fancy that much of the objection made to the work by independent observers originates from this cause.

2. *Leading.*—We recommend that the lead used should be made thicker in the leaf than that used at present. This would increase the stiffness of the panels and reduce the tendency to buckle. The lead should be virgin lead. That in use at present contains undesirable impurities.

3. *Cleaning the Glass.*—The system now in use, which involves digesting the glass for a considerable period in hot water containing soda, is undoubtedly

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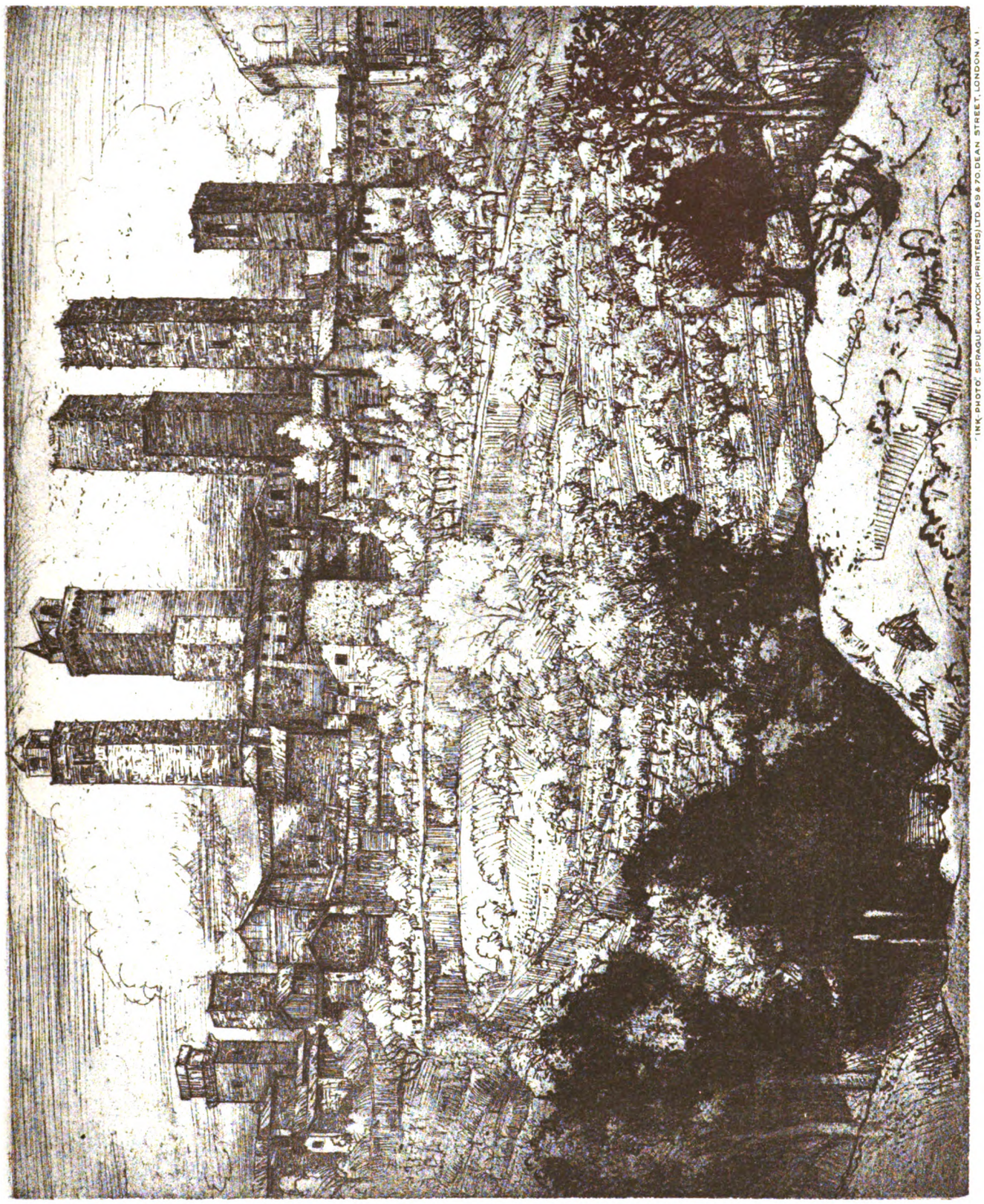
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THE CONCIERGERIE, PARIS.
By DONALD SHAW MACLAUGHLAN.
FROM THE LEICESTER GALLERIES.

"INK-PHOTO" SPRAGUE-HAYCOCK (PRINTERS) LTD. 69 & 70, DEAN STREET, LONDON, W.1.

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CITY OF TOWERS.

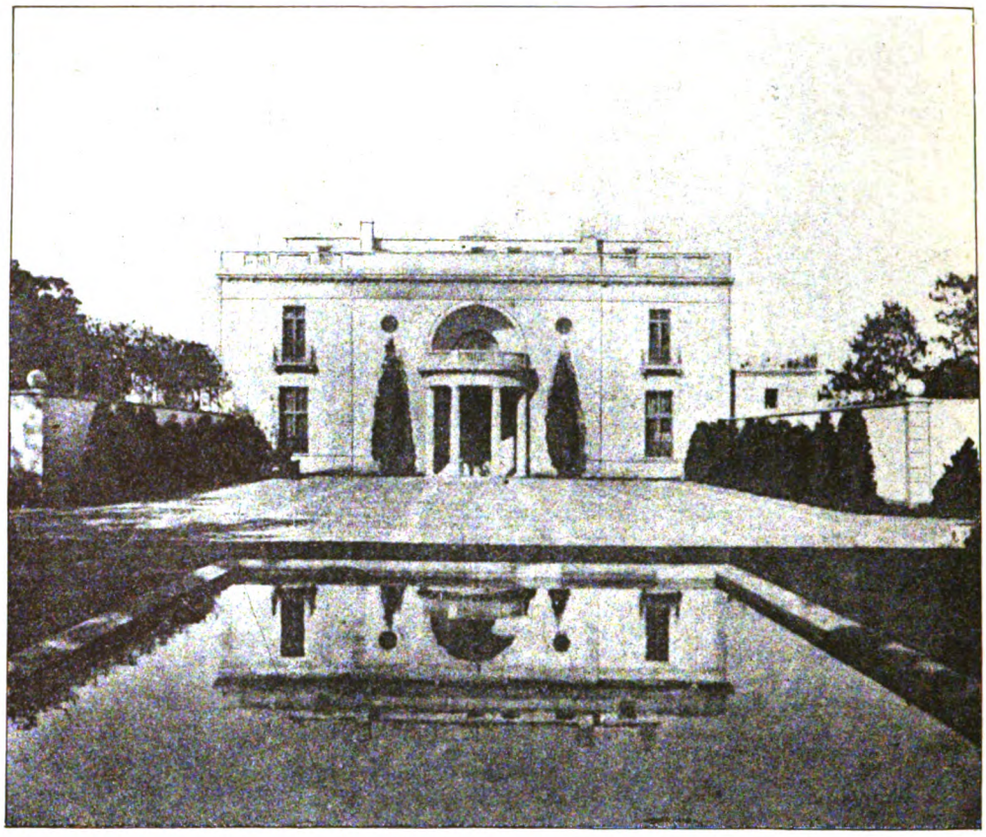
By DONALD SHAW MACLAUGHLAN.

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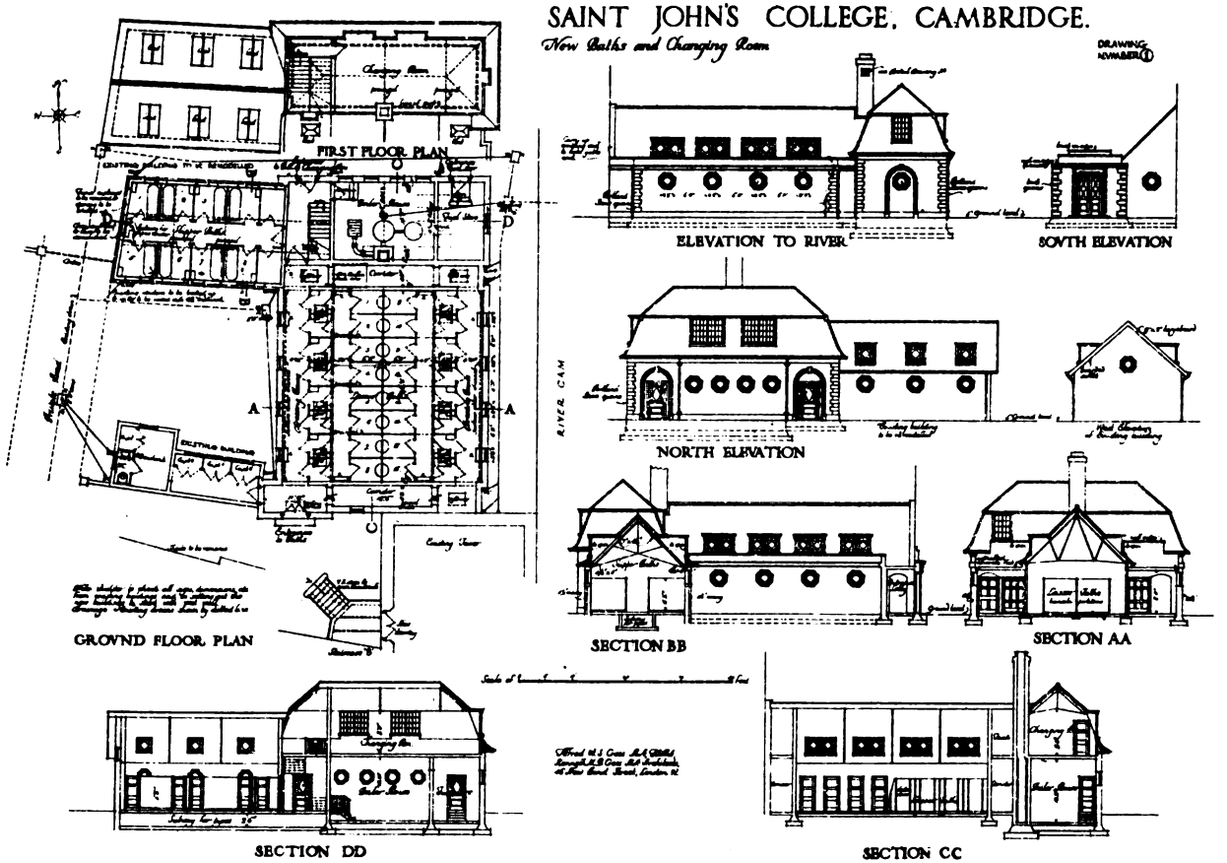
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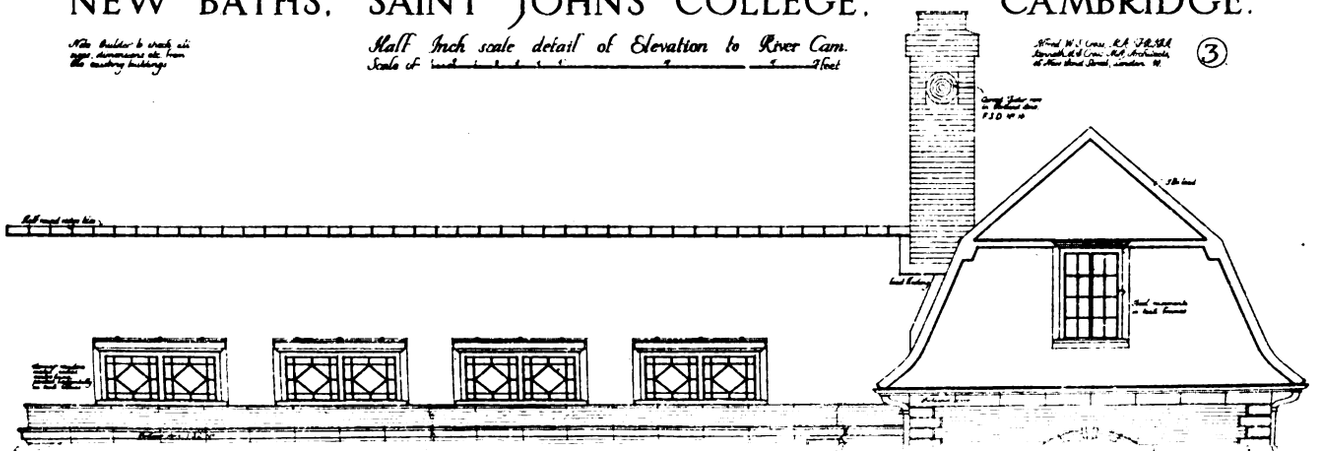
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New Baths and Changing Room

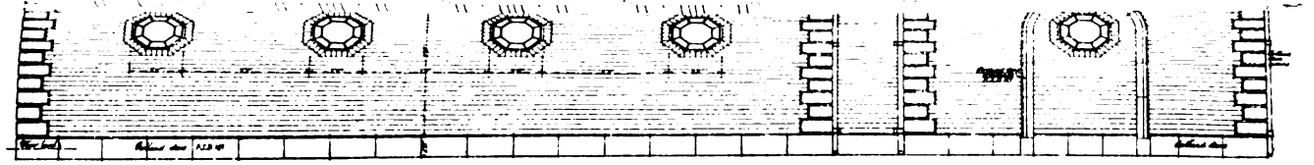


NEW BATHS, SAINT JOHNS COLLEGE, CAMBRIDGE.

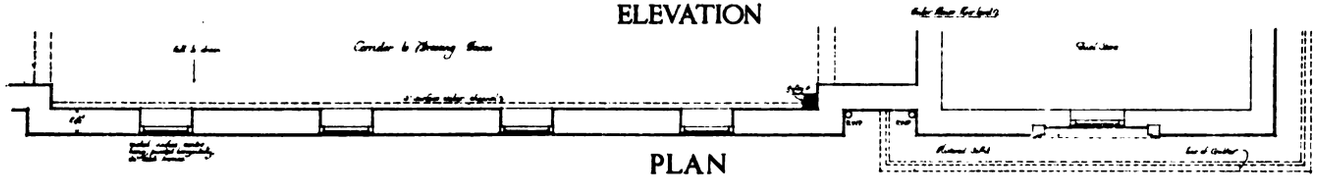
Half Inch scale detail of Elevation to River Cam.



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ELEVATION

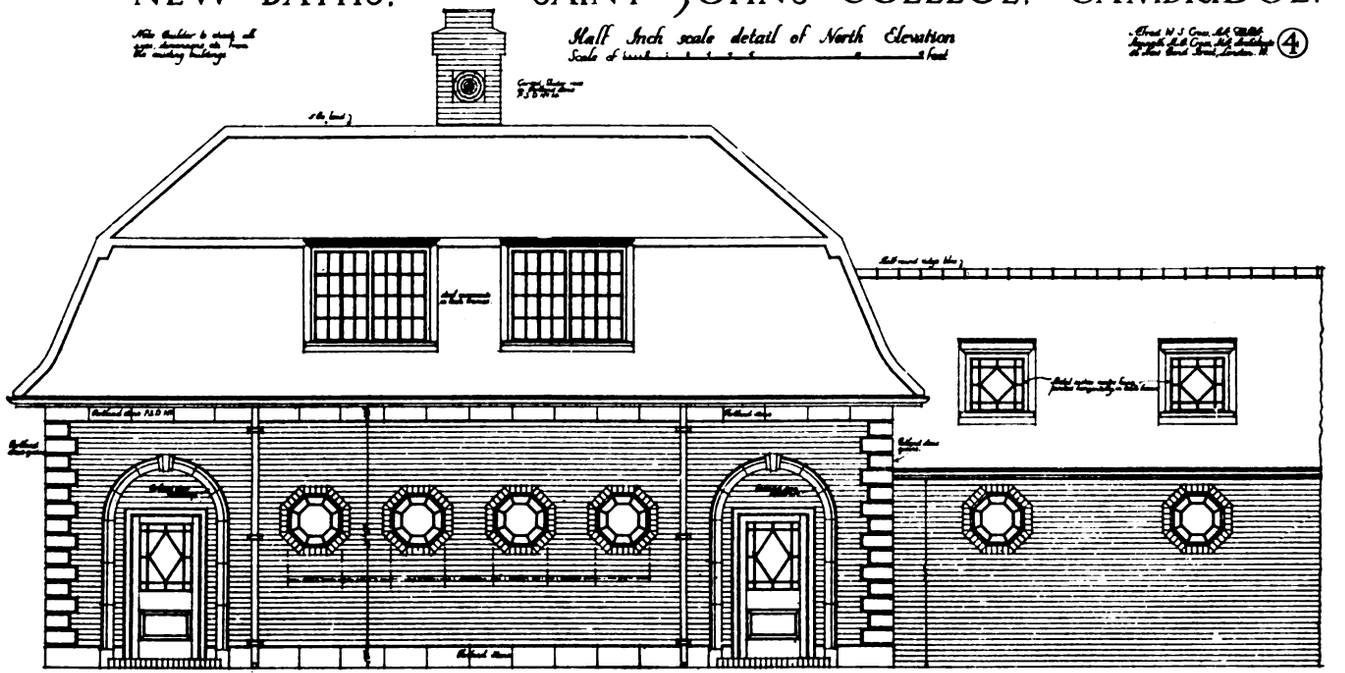


PLAN

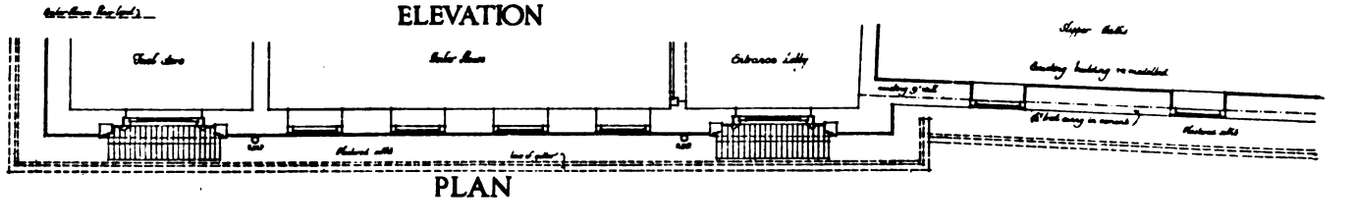
NEW BATHS. SAINT JOHNS COLLEGE. CAMBRIDGE.

Half Inch scale detail of North Elevation

④



ELEVATION



PLAN

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NEW BATHS, SAINT JOHN'S COLLEGE, CAMBRIDGE.

A. W. S. CROSS & KENNETH CROSS. ARCHITECTS.

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effective, and is certainly preferable to scraping. But while this treatment would not seriously affect new glass, it is in our considered opinion a somewhat severe treatment for glass of the peculiar composition and "tenderness" of that in question. The composition of the glass was originally of indifferent quality, and has been so altered by the exposure of centuries that, as has been shown by experiment on glass of like quality, it is possible to destroy it entirely by a prolonged treatment of undue severity. We understand from those in charge of the work that no alternative method has been investigated. We recommend that a suitable organic solvent should be tried for softening the dirt and putty. Experience has shown that a solvent carefully chosen would have no detrimental action on the glass and would be quicker in operation.

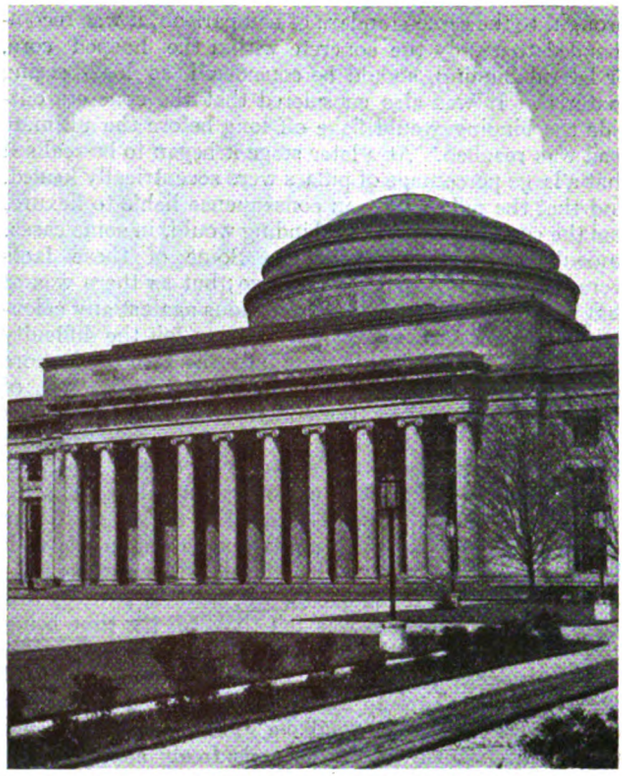
4. *Cementing.*—The present practice of brushing the cement over the entire surface of the panel has the disadvantage of removing the patina, and filling up the pit holes, giving them unnatural opacity. We recommend, as a better plan, slightly raising the leaf of the lead and working the cement under the edge with a knife, without touching the main body of the glass. This method is perhaps more tedious, but taking into consideration that the present method involves a tedious after-treatment for removing the superfluous cement from the body of the glass, we do not think it would involve serious increase of labour, and would be justified by the results. In making recommendations three and four, we have more particularly in view the repair of the Chapter House windows—the glass is in such an extreme condition of corrosion that we are confident that it will demand the most careful consideration on these points when it comes to be handled.

5. *Materials for Cementing.*—We understand that the cement at present used is a mixture of red lead and boiled oil. This is in accordance with the usual practice of the craft at the present time, but, as durability is of supreme importance in this work, it may be useful to mention that recent researches have demonstrated that a more durable material is produced by using "Litho Oil" (that is, linseed oil thickened by heating), in place of ordinary boiled oil. The cement would be strengthened if a small proportion of plaster of Paris and whiting is added to the mixture. It is suggested that at the first opportunity the Bell Founders' window, which was among the earliest to be treated (1907), be taken out and done again, for the effect of the window is much spoiled by the cement left on the pitted surface of the glass. We may add that the Clerk of the Works agreed with us as to the advisability of this step.

In this report we have confined ourselves entirely to the glass, but we consider that the way in which the stonework of the windows is dealt with is of equal importance, vitally affecting, as it will, the whole appearance of the Minster when the repair work has been completed.

We have in these pages recommended certain changes in the method of treatment of the glass which in our opinion are important, but we should not like to close our report without expressing our general approval of the lines on which it is being carried out, and our appreciation of the care exercised by those who have the direction and execution of a very difficult and responsible task. Their efforts to ensure the preservation of a national treasure will, we hope, enlist the support of the public at large.

In submitting to the London Education Committee for approval a list of contractors selected to tender for work at the London County Council educational institutions, the Building Sub-Committee state that they have had due regard to the resolution of the County Council that contracts should be entered into only with firms whose names are on the King's National Roll. The Sub-Committee add: "We submit a recommendation for the removal from the approved list of forty-eight firms whose names do not appear on the King's National Roll, and who have either failed to reply to the Council's inquiries or have given no indication of their intention to be enrolled."



INSTITUTE OF TECHNOLOGY, BOSTON, MASS.
WELLES BOSWORTH, Architect.

The Concrete Institute.

The opening meeting of the new session of the Concrete Institute was held on November 24 at Denison House, 296 Vauxhall Bridge Road, S.W., when, for the second time, Mr. E. Fiander Etchells, F.Phys.Soc., A.M.Inst.C.E., Hon. A.R.I.B.A., &c., gave a presidential address. As on the previous occasion, Mr. Etchells covered a very wide ground. After introducing to the members the new Secretary, Captain Maurice G. Kiddy, late of the Royal Flying Corps, the President proceeded to outline a suggested scheme of systematic instruction in the theory and practice of concrete.

It was, he said, a remarkable fact that though concrete may now be regarded as a distinct and individual industry, yet little provision has been made for systematic education in its theory and practice. What was wanted was a new type of mechanic, the expert concretor and block-setter. Up to now the education of the concretor had been left very largely to chance. It was imperative that provision be made for training the young. In the future curriculum of the various technical schools and institutes throughout the country concrete should be regarded as an independent subject, and courses, both in simple theory and in practice, arranged for six months each year. A small committee of the Concrete Institute might, after obtaining the approval of the Board of Education, draw up a suggestive course on modern lines and carry out examinations. The object of these courses would be to produce skilled concretors and block-setters who, by gaining a certificate, would have a definite status in the industry which is already in existence, but which has yet to be organised. Would it not be possible to organise a union for such men, so that they could work side by side and in harmony with bricklayers and other unions?

After discussing some aspects of the strength of brickwork, standard notation, and the fire resistance of wood, Mr. Etchells touched on the possibility of amending the L.C.C. Reinforced Concrete Regulations. In the ten years which have elapsed since the Royal Institute of British Architects published their second report on reinforced concrete, much additional data had, he said, been obtained. Ten years ago, in the endeavour to seek generality in the pillar formulæ, and to devise a rule which would enable Mouchel and Considere pillars to be

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brought to the same standard of comparison, it was recommended that only the concrete within the hooped core, or lateral binding, should be considered as load-bearing material. It was also considered that the concrete outside the binding would flake off long before the ultimate load was reached. At a later stage it began to be realised that a large percentage of pillars were eccentrically loaded, and that the pillars were in consequence liable to flexure, and the concrete outside the binding would, in some cases, undoubtedly be in compression. Some of these facts were foreseen at a very early stage; but as there was at that time prejudice in certain directions against any calculations of the fact of eccentricity, it was felt the difficulty could be partly met by allowing only the area of the core to be considered as constituting the compression area of the pillar, and to allow the concrete outside the laterals on one side of the pillar to be useful in resisting the flexural stresses due to the eccentricity of the load. At a later stage, when the prejudice against calculations for eccentricity of loading had somewhat subsided, it was recognised that it would be unreasonable not to allow all the concrete in the pillar to be considered as a part of the pillar, particularly if the question of flexural stresses was under consideration. It was felt that, for the time being at any rate, the member was in effect a vertical beam, subject to direct compression in addition to the flexural stresses. Going back to an earlier stage in the evolution of reinforced concrete, it will be found that beams were frequently designed as having ends freely supported by a series of pillars in line. Naturally enough, cracks were found in the tops of the beams over the supports. To remedy this defect, an arbitrary amount of steel was inserted over the supports, but the amount was not calculated on any scientific bases. At a later stage beams were designed as being purely continuous, and were designed to resist variations in the incidence of loading, so that no cracks would occur, whether all the bays were loaded or whether any of the bays were unloaded.

In the meantime two earnest students of reinforced concrete—(1) Dr. Faber in England and (2) Captain Harrington Hudson in India—were engaged on the laborious calculations necessary to find the general formula which would take into account a series of pillars with the beam over them as constituting in itself one truly monolithic structure subject to elastic deflections. The result of Dr. Faber's investigations were published first; but Captain Harrington Hudson's work, which was published later, was quite independent.

Dr. Faber obtained his results by considering the slope of the elastic line at every part of the beam. His calculation involved the use of a stiffness factor which is the hetrogeneous rate subsisting between the inertia moment and the length of the member. Captain Hudson obtained his results by an ingenious abduction of the theorem of three moments, and he uses two pure rates which are obtained by, in one case, finding the pure ratio between the inertia moment of the pillar, and, in the second case, finding the pure ratio between the length of the beam and the height of the pillar. The results obtained by both men are in close agreement, and if it were not for the introduction of one or two subsidiary, though inevitable, arbitrary factors the agreement would be complete. There could be no doubt that all those who have to formulate any rules for monolithic construction must hereafter take into account the work of these two engineers. It was, however, possible that for some time to come there will be engineers who would prefer to design their structures on the assumption that all loads are central and all beams freely supported; and afterwards, recognising that their assumptions are not in accordance with fact, they will add an arbitrary amount of steel to minimise the tendency to cracking.

Mr. Etchells said he would finish with this thought: the most enduring vestige of any civilisation will probably be some buried and forgotten foundation bed of concrete. Steel will rust. Wood will perish. Bricks may crumble into clay. But concrete foundations, buried deep down in the earth, will endure until the end.

The Disabled Ex-Service Man.

Now that the granting of Government contracts is dependent, save in very exceptional circumstances, upon the name of the firm being on the King's Roll, a review of all undertakings which have been in operation for one year or more has been rendered necessary. The certificates under the scheme were renewable annually, and injustice might be caused to contracting firms which are not on the King's National Roll if the advantages provided by the Government decision were given to firms whose certificates under the national scheme had expired and who might no longer be observing the obligations referred to in the certificate. It has been decided by the Ministry of Labour that renewals for a further period of two years, instead of one, should now be asked for.

Invitations to firms to renew their undertakings will be issued by the Local Employment Committees, and these bodies are at present preparing, in their respective areas, lists of employers whose undertakings have already expired or will expire in the course of the next week or two.

An important new regulation provides that an employer is entitled to count in his quota any ex-Service man still in his employ who was in receipt of a disability pension at some time or other while employed by him, but who has since ceased to receive the disability pension.

The value of the National Scheme, under which employers undertake to employ disabled men up to an agreed percentage not ordinarily less than 5 per cent. of their total staff, is indicated by the fact that during the period of trade depression through which the country has been, and is, passing, the number of disabled men registered as unemployed showed only a small increase, compared with the increase of the general unemployed register. It is felt that employers who have thus shown themselves to be not unmindful of their obligations to the disabled ex-Service man can be relied upon to respond to the new request which is now being made to them.

Up to date the names of 29,000 employers of labour have been inscribed on the King's National Roll. They have given the necessary undertakings; they can use the Seal of Honour. Their undertakings cover approximately 365,000 disabled ex-Service men. So far, the response from Local Authorities has not been very encouraging, and at the end of November there were in England and Wales alone 1,646 local bodies whose names were not on the King's Roll.

There are at the present time 25,000 disabled men in training under the Ministry of Labour schemes in training centres and Government instructional factories, and there is a waiting-list of 25,000 men who have not yet received training, many of whom are still in hospital recovering from wounds and disability incurred while they were fighting in their Country's service. Since the industrial training of disabled ex-Service men commenced 50,000 have passed through the instructional factories and centres. These men have all received efficient training in the various crafts which they have decided to follow as their peace-time vocation, and many testimonials have been received from employers both with regard to the keenness of the workmen and the excellence of their workmanship. During the prevailing industrial depression considerable difficulty has been experienced in finding places for a number of those who have reached the stage when they are ready for placing with employers in "improverships," and the Ministry of Labour has made special provision to keep in the training factories during the winter months those trainees who have not exhausted their periods of training with maintenance or part-maintenance from the Government. At the same time special canvassing efforts are being made to find "improver" vacancies, and 1,929 have been so found in the last thirteen weeks. If employers can now see their way, when considering the renewal of their undertakings, to take on more of these men it will help to make room

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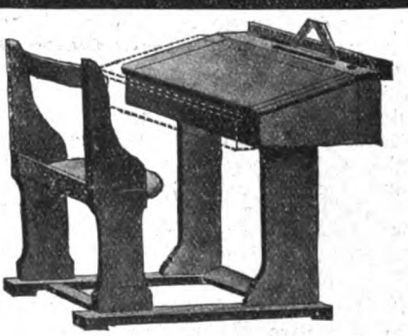
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in the factories for those still on the waiting-lists who are anxious to receive training.

It is hoped that employers who have not as yet enrolled will take this opportunity of reconsidering the matter. Every additional name on the King's Roll guarantees employment for disabled men to whom we owe so much.

New Catalogues.

Fredk. Braby & Co., Ltd., Ida Works, Deptford, have issued a new and revised pocket price-list of cisterns, tanks, and cylinders. It will be noticed that the prices have been very considerably reduced. Messrs. Braby have also added several new sizes of cisterns, as well as revising those that are kept in stock, to enable them to supply promptly all those sizes which are most in demand.

The Edison Swan Electric Co., Ltd., maintain a special works for the manufacture of silk shades, and have issued a 34-page catalogue, List No. SS 242, to show what is produced there. The company not only specialise in shades for cinemas, theatres, hotels, and restaurants, but also recover all types of silk shades at the shortest notice. It is difficult to obtain an idea of the effects from half-tone illustrations, so we would advise a visit to the showrooms, which in London are at 123-5 Queen Victoria Street, E.C., and 71 Victoria Street, S.W., or to one of their provincial depôts.

Mr. E. R. Buggé, F.C.S. (Eclipse Works, Westcombe Hill, S.E. 3), is a manufacturing and agricultural chemist who has declared war against dry rot and other fungi. His weapon of attack is "Dyphenin," an extremely strong antiseptic paste which is mixed with water and applied, generally as a 2 per cent. solution, with a brush. The inventor has issued a booklet on his material which incidentally contains considerable information on the subject of fungoid growths. After discussing the many disinfectant substances which have been put forward, the booklet claims that "Dyphenin" is at present the most effective and cheapest preparation yet discovered. Particular emphasis is laid on the fact that "Dyphenin" does not prevent wood from being worked—i.e., planed, painted, or varnished—it does not smell, and only imparts to wood treated with it a stain resembling boxwood.

The National Radiator Co., Ltd., London and Hull, have just issued three insets for inclusion in their current catalogue dealing with the "Ideal Classic" four- and six-column and "Ideal Classic" wall radiators, "Ideal" towel-rails, No. 1-H series boilers and headers. The special features of the "Ideal Classic" radiators are their graceful appearance and great compactness. The No. 12 towel-rail is similar in design to the No. 10 already listed in the catalogue, but is provided with flanges at the top to permit of screwing the rail to a wall. The No. 1-H series boilers are constructed on similar lines to the "Ideal G" series, with water-cooled grate-bars and the patent insulated steel jacket. They are available both for steam and water.

The Electric Lamp Manufacturers' Association of Great Britain, Ltd.—"E.L.M.A." for short—are making laudable and strenuous efforts to increase the activity of their industry in this country. This is being done through the medium of a publicity campaign carried out scientifically by experts. The strength of the Association is evidenced by the following list of its constituent links: British Thomson Houston Co., Ltd. (Mazda); Edison Swan Electric Co., Ltd. (Royal "Ediswan"); English Electric & Siemens Supplies, Ltd. (Siemens Britannia); Foster Engineering Co., Ltd. (Foster); General Electric Co., Ltd. (Osram); Metropolitan-Vickers Electric Co., Ltd. (Cosmos); Pope's Electric Lamp Co., Ltd. (Elasta); Stearn Electric Lamp Co., Ltd. (Stearn); Z Electric Lamp and Supplies Co., Ltd. ("Z"). The E.L.M.A. stands for a fair deal both for the retail trade and for the user. In connection with the campaign a booklet has been got out which gives an excellent idea of the wide scope of such operations, as well as many cogent proofs of its value to the industry.

Under the title of "20th Century Building," Bell's United Asbestos Co., Ltd., Southwark Street, S.E., issue an attractive illustrated booklet dealing with "Poilite" sheets and tiles and "Hurcan" slabs—the latter are of concrete, surfaced with grey Poilite, and are made at their Harefield works. Two of the practical advantages emphasised are the fire-resisting qualities of the material and the independence it confers of that *rara avis*—the plasterer. The text illustrations, which are chiefly from clever drawings by Mr. Sydney R. Jones, show that the aesthetic effect can be excellent. Some of the designs bear the name of Mr. Francis Bacon, architect. Two further asbestos products manufactured by this company are "Decolite" jointless flooring and "Calbonite" walls for bathrooms, sculleries, &c.

The Titan Lift Co., Ltd., 20 High Holborn, W.C., have adopted the loose-leaf principle for their latest catalogue, and will, therefore, be able to keep it thoroughly up-to-date by the clipping-in of future additional sheets. This company can supply the service desired for hotels, flats, private houses, or business premises. By means of photographs some dozen typical installations are shown. A special effort is always made to bring the usually intrusive lift into harmony with the general architectural scheme. This company also deals with crane work of all descriptions, electric travellers, hoists, and pulley-blocks.

Messrs. Wm. Harland & Son, Merton, S.W., in a brief preface to their latest brochure, "Special Materials for Decorators," explain that its object is to bring more prominently into notice a few specialities not fully reviewed in their catalogue. Among the articles so dealt with are their Church Seat Varnish, Damp Wall priming, "Scumble" stains, "Silverine," "Red Extra," "Harlania" (a white undercoating), liquid sealer, petrifying and sanitary flat enamels, enamel filling composition, and varnish remover. Messrs. Harland, whose widely-known business was established in 1791, hold a warrant of appointment to His Majesty King George V.

There is no reason why any building scheme should be delayed by the difficulty of obtaining plasterers, as the excellent material produced at the Thames Mills, Purfleet, Essex, under the title "SX" Board by the Thames Paper Co., Ltd., can be, and has been, used with excellent effect in substitution for plaster, and has been approved for such purposes by the Ministry of Health as well as other authorities, and time and money are saved by its employment. The makers' booklet, entitled "Artistic Interiors," gives a brief description of the uses and advantages of "SX" board. The whole process of manufacture, from fibre to finished board, is carried out at their Thames Mills, so it is a real British industry.

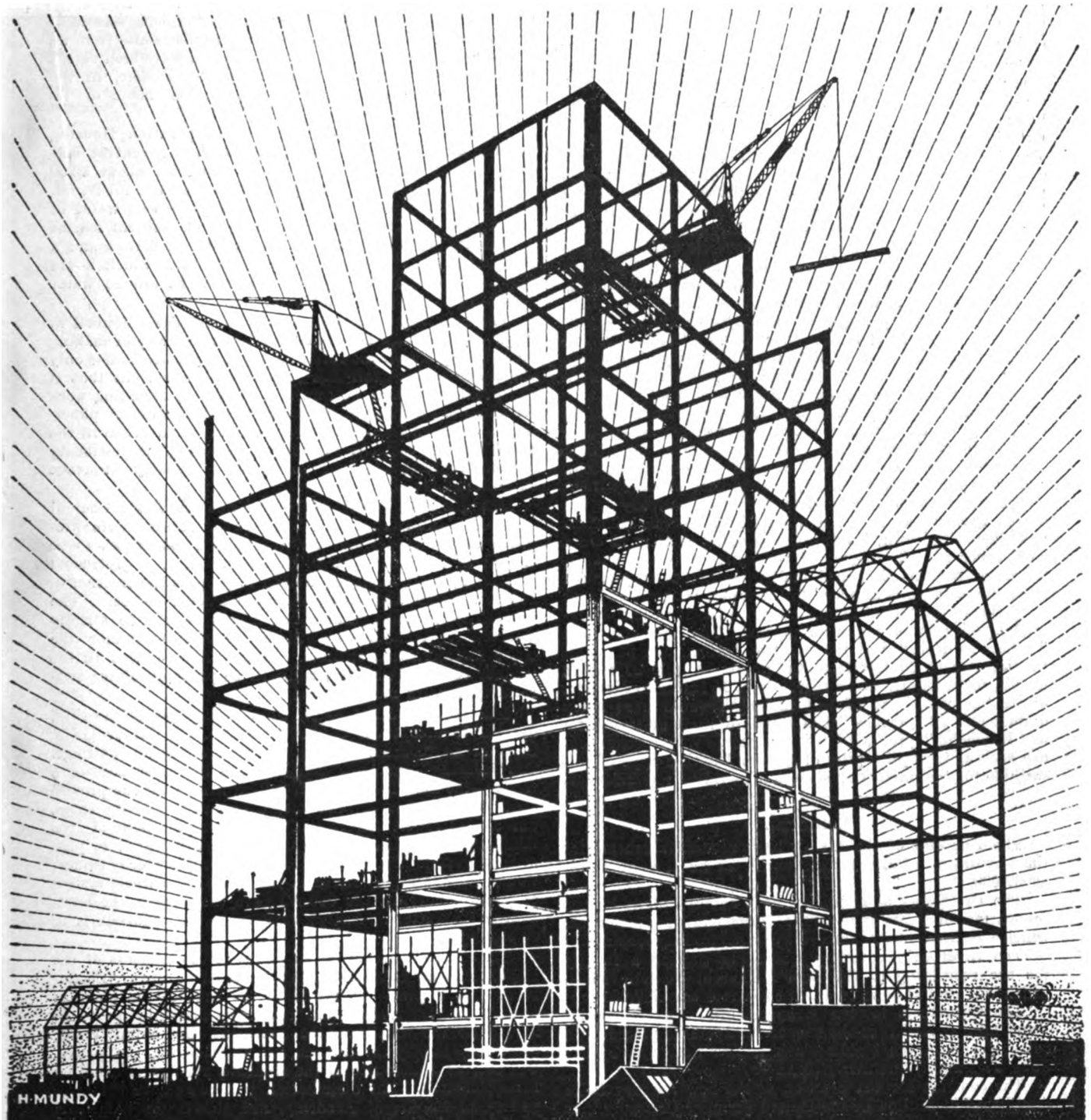
From Messrs. Williams & Williams, Ltd., of Chester and Sardinia House, Kingsway, W.C., we have just received two four-page leaflets illustrating their "Reliance" standard metal windows. One of these illustrates the cottage types, and the other the types for factories, collieries, gasworks, power-houses, &c. All "Reliance" windows are constructed of finest rolled-steel sections, straightened by hydraulic machinery, corners of frames welded solid and pressed to size under 600-ton presses. "Locked joint" glazing bars made to templates, thus ensuring uniformity throughout. After final adjustment and inspection the completed window is coated with high-quality weather-resisting paint.

The Pyrene Company has devoted much consideration to the question of fire extinction, and have brought out several types of extinguishers, among which are the "Conquest" extinguishers, which are efficient in any incipient fire, while the liquid they contain does not damage any class of goods. For large factories and warehouses the "Pyrene" chemical engines, made by the same firm, are most efficient. They act in the same manner as the "Conquest" extinguisher, but, being of much greater capacity, can be used to cope with fires which have obtained large proportions. It should be noted that by the installation of these appliances rebates can be obtained from the usual fire insurance rates amounting to 5 per cent. or 7½ per cent. of their amount. The extinguishers produce a heavy non-poisonous cloak or blanket separating the flames from the burning material, and so killing fire. The company also make a fire pump-tank, which can be effectually used to direct a continuous stream of water upon a fire, which will reach a distance of thirty or forty feet. Chemical fire-engines are another of the specialities of the firm, as well as a "Firelok" which is an automatic fire-alarm operated by clockwork. Standpipes, hoses, and all accessories required for effective fire-prevention purposes are manufactured and supplied by the company. Architects are invited to write for the company's handbook, "Modern Fire-Fighting."

It is proposed to enlarge St. Edmund's (R.C.) School, Monsall Street, Manchester, by providing additional accommodation for about 500 children.

The will of the late Alderman William Henry Jessop, of Huddersfield, four times Mayor of Huddersfield, of the firm of Messrs. Graham and Jessop, builders and contractors, has been proved at £36,420.

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Raymond Concrete Pile.

The firm of J. & W. Stewart (London, Belfast, and Dublin) have enjoyed for many years a big reputation as specialists in reinforced concrete for all purposes, apart from that gained as general contractors, of which latter they laid the foundation in Belfast as far back as 1874. One of their great successes was the "C.P." (Cast-in-Place) system of concrete piling for foundations. By this method a heavy steel tube, generally 16 in. outside diameter, with a loose cast-iron point, is driven into the ground by a drop-hammer; then it is filled with concrete, and is finally pulled out, leaving the concrete to fill the hole so formed. The "C.P." pile has been in use for some seventeen years or more. But Mr. W. J. Stewart, son of the founder, and the present head of the firm, is not the man to rest on his laurels. So he has long kept a keen eye on the industry as practised in other countries, and especially the United States.

In America the "Raymond" concrete pile has been capturing wider and wider markets ever since 350 of them were first used in 1901 for a Chicago apartment building. At the present day, we understand, considerably more than 50 per cent. of the piling work in the States is done on the Raymond method. It is now about to be introduced to this country by Messrs. J. & W. Stewart, 12 Berkeley Street, W., who are the sole licensees. On Tuesday last a very interesting demonstration was given by the firm at Park Royal.

Instead of a heavy steel tube, the steam-hammer drives into the ground a collapsible tapering steel mandrel or pile core which is sheathed in a spirally reinforced steel shell. This shell is drawn over the core in telescoping sections, and is closed at the bottom by a steel boot or cap. When the core has reached the desired depth (on Tuesday it was driven twenty feet in seven minutes) the core is collapsed and then withdrawn, leaving the tapering shell to be filled with concrete. The object of the spiral reinforcement is to ensure that this steel shell shall withstand earth pressure. Great importance is attached to the taper, which is as much as $\frac{1}{10}$ths in. per ft. of length owing to the increased carrying capacity it is found to possess. The pile cores are 8 inches in diameter at the point or bottom, and 20 inches in diameter at 30 feet from the point. A pile 20 feet in length, for example, would therefore be 16 inches in diameter at its top, while one 37 feet in length would have a top diameter of $22\frac{8}{10}$ inches. The standard limit of length for a "Raymond" pile is 37 feet 6 inches. Where conditions are such as to require piles of greater length a type of pile suitable for the particular situation would be recommended.

General.

The Engineer of the L.C.C. has prepared a scheme for the ventilation of Blackwall Tunnel, at an estimated cost of £7,000.

The Presbytery of Hamilton have adopted plans for the renovation, at a cost of £4,000, of Stonefield Parish Church, which has been much damaged by underground workings.

The Liverpool Consistory Court has decreed a faculty for the rebuilding of St. Bede's Church, Toxteth Park, which was burned down in 1918; estimated cost £17,000.

The subscribers to the Grangemouth War Memorial Fund have agreed that the memorial should be placed on a suitable site in the Public Park. The design is by Sir John J. Burnet, A.R.A., R.S.A.

The contract for the erection of the new foundry to be established at Malton by the United Foundry Company, has been secured by Messrs. W. and T. Anderson, of Glasgow. According to plans approved by the Norton Urban Council, the buildings will cover one acre, the main building being 280 feet by 145 feet.

The absence of adequate shopping facilities within Rosyth Garden City has been complained of repeatedly by residents. The Rosyth Shopping Company propose to erect eleven shops. Plans for the proposed business premises have been passed by the Dunfermline Dean of Guild Court, subject to certain stipulations. Above the shops are to be built three dwelling-houses of four rooms each, and one of three rooms.

Professor Beresford Pite, F.R.I.B.A., gave a lecture on the 25th ult. at the Manchester University entitled "The Building of St. Paul's Cathedral." Professor Pite's address was the first of a series of three lectures on "The Art of Building" which have been arranged by the Extra-mural Department of the University of Manchester in conjunction with the Institute of Builders and the Manchester Society of Architects. Before delivering his lecture at the University Professor Pite was entertained to dinner at the Manchester Constitutional Club by the Institute of Builders.

The committee appointed by the Bishop of Worcester to inquire into the preservation of the archæological objects in churches and on alterations of fabrics has issued its first report, which states that considerable progress has been made. Among the matters with which the committee has been concerned has been the erection of a new screen at Hales Owen. The committee's decision is that while from an archæological point of view objection would have been raised had the facts come before the committee earlier, in the existing circumstances no objection can be made to its erection.

In connection with the Glasgow Corporation Housing Scheme at Mosspark, it is suggested that a central hot-water supply scheme should be instituted for about 1,200 houses still to be built. The present idea is that, for 2s. 6d. a week, a daily supply of twenty-five gallons of water of 150 degrees Fahrenheit could be given. The central scheme for the supply would involve the erection of boilers and a large supply tank, with a system of conduits which would take the hot water throughout the area, the unused water returning to the boilers to be reheated.

The Publicity Committee set up by the Town Council at High Wycombe has been considering the best way of making more widely known the fact that High Wycombe is not only the centre of the chair and furniture industry, but that it can produce the best woodwork of all kinds, including work for ecclesiastical buildings, school furniture, interior panelling and decorations, &c. It is proposed to advertise in the press, and the committee are also considering the possibility of the representation of the town's industry at trade exhibitions.

The Housing Committee of Edinburgh Town Council have been informed that the Board of Health were prepared to grant subsidies for a further 1,500 houses to be erected in different parts of Scotland. After a protracted discussion, the Committee decided to propose the erection of 280 new houses and ninety-six reconstructed houses. The Committee proposes that these houses should be strictly reserved for tenants who will be dispossessed under the city's reconstruction schemes. They will be erected in the "inner belt" of the city, and will be probably of the two-room type, with moderate rentals.

The Hove Town Council, at a recent special meeting, decided to accept the tender of Messrs. G. Bainbridge & Sons, of Eastbourne, £16,723, for the erection of dwellings. The Housing Committee had favoured the acceptance of a tender—the next lowest—from a local firm, with the proviso that the difference of £280 should be met out of the rates, but as the lowest tender had the approval both of the Ministry of Health and the Office of Works, and, to pass over an outside firm in order to admit a higher local tender, would, as was urged, strike at the root of the whole system of public tendering, the Council gave the work to the Eastbourne contractors. Except supervisors, local labour is to be employed.

The annual distribution of prizes to the students of the Royal Academy Schools will take place on Saturday, December 10, at 9 p.m. This will be the first of the biennial awards of gold medals and travelling studentships to be held since the war, and the President, Sir Aston Webb, after announcing the awards and distributing the prizes, will deliver a discourse to the students, such as is usual on these occasions. The distribution will be held in the large gallery of the Royal Academy, and tickets for admission (free) may be had on application to the Secretary, Royal Academy, Piccadilly, W. 1. The galleries containing the competition works for the prizes will be open to the public on Monday and Tuesday, December 12 and 13, from 11 to 4.

On Friday, December 2, about 120 students from the Architectural Schools gathered in the Galleries of the R.I.B.A. to inspect the Exhibition of American Architecture. Mr. Austen Hall, Mr. Miller, and Mr. Howard Robertson had consented to be present. Catalogues were distributed, and some time was spent in strolling round and looking at the exhibits. Mr. Austen Hall, in introducing Mr. Miller, remarked that a great opportunity was now being presented to students of learning much about the condition of architecture in America; they were fortunate in having Mr. Miller in their midst to give them the benefit of his wide experience. Mr. Miller then gave an informal talk on the developments and style of American architecture, illustrating his remarks by reference to exhibits in different parts of the Galleries. At the conclusion of Mr. Miller's remarks Mr. Hall, Mr. Miller, and Mr. Robertson conducted the students round the Galleries, pointing out the main features of interest in each exhibit.

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The Birmingham "Hall of Memory" Competition.

THE "Hall of Memory" to be dedicated to the memory of citizens of Birmingham who have fallen in the War forms a part of an important city improvement scheme at the junction of Broad Street and Easy Row. The Hall is to occupy a site at the angle of the two roads, while the space in rear will ultimately be utilised for the erection of a City Hall.

Two fundamental considerations should, in our view, determine the treatment of such a subject—the first, that the Hall of Memory must of necessity be a much smaller building than those immediately surrounding it; the second, that it should be regarded primarily as a memorial, and only in a secondary or minor capacity as a building. It will, in other words, be a building which will be infrequently entered as time goes on, while its primary object—that of a monument—will constitute its chief claim to the regard of the citizens of Birmingham.

But this view of the real object and function of the Hall of Memory has not been shared by the assessor or by the majority of the competitors, and it therefore follows that the award is, from our point of view, a fundamentally mistaken one.

If we were selecting a design for a house we should obviously consider its internal arrangements as the first consideration, whereas in this case we should have assumed that no design which was obviously that of a small building should have been selected, whatever its merits might be, as it will be dwarfed and made of secondary interest when adjoining buildings are erected.

But if we place on one side our convictions as to type, we must admit the first three designs, which we shall illustrate later, to be good, if somewhat obvious, renderings of the "small temple" idea. The winners, Messrs. Cooke & Twist, have submitted a design showing a well-proportioned octagonal building with a projecting porch and small apse, the two sides being marked by similar projections containing small service and caretaker's rooms.

The design placed second—that of Mr. Edwin F. Reynolds—follows the lines of a Greek cross, with a dome over the intersection and low buildings partly filling in the spaces between the arms of the cross. Its detailed treatment is delicate and refined, though a little deficient in character. It is shown by a carefully drawn and delicate set of drawings.

The design placed third is that of Mr. Holland W. Hobbiss, A.R.I.B.A., and also takes the form of a Greek cross with quadrant-shaped angles. It is covered internally by intersecting circular vaults. The treatment of the terminal feature of the building is not a very happy one, the upper stage being both too narrow and too high to be quite in scale with the superstructure.

Nine designs are marked as being those from which the assessor made his final selection. Of these, No. 9 (which we shall illustrate), by Messrs. Butler, Crouch & Savage, is a well-proportioned square building with the angles cut off. Internally the building is domed and externally each face is recessed, leaving columned spaces. The building is domed internally and square externally, and possesses a good quality of dignity.

No. 6, by Mr. John B. Surman, which we shall also illustrate, is a well-detailed domed structure, remarkable for its excellent detail.

No. 8, by Messrs. Buckland and Haywood, which we shall illustrate more fully, is, in our view, incomparably the finest design submitted, and the one which should easily earn the first place. Here we have a monument which could not be dwarfed by its surroundings because the whole treatment is that of a monument. The treatment of the surrounding steps and the flanking equestrian figure are alike excellent and all that could be desired; while the Hall of Memory itself takes the form of a Byzantine church and is the most appropriate interior in the room for its object.

Mr. G. Salway Nicol, No. 12, sends two designs, both rectangular in outline. The alternative, or smaller design, with its slightly battered outline, is one of the best schemes submitted. No. 19, by Messrs. Harrison & Cox, is a circular domed building treated externally with four concave curves and surmounted by a lofty domical feature treated in two curves. The author has submitted an exceedingly good set of drawings.

No. 26, by Mr. James H. Swan, of which we shall give a view, takes the form of a very simple domed building admirably detailed. The one projection beyond the circular outline is a portico bearing the single word "Remembrance." The interior is a little spoiled by the great attenuation of its detail. No. 2, by Messrs. Martin & Martin and W. H. Ward, is a good and simple design in the form of a Greek cross with a dome over the centre. No. 13, by Mr. J. Coulson Nicol, is a well-conceived scheme which builds up satisfactorily both internally and externally. We are inclined to think the broken pediments over the central feature of each face are a mistake in a building of this character, but the whole mass is admirable in its grouping. No. 11, by Mr. W. H. Bidlake, is a clever essay which has been insufficiently worked out. Internally it is octagonal, with angle niches, and a columned clerestory over the main arches of the octagon. A high cone-shaped drum over the internal dome carries the surmounting range of stepped stages, the exterior being square on plan.

No. 23, by Marcus O. Type, has adopted a square plan with a domed centre surmounted by a lofty obelisk. The author has, we think, made a study of Hawksmoor. The scheme is a clever one, but would scarcely form a satisfactory memorial.

No. 28, by Mr. Alan Snow, is remarkable for the great height to which the central domed termination has been carried in an attempt to escape from the unsatisfactory effect of a low building, which will be subsequently surrounded by loftier neighbours.

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We could comment on other designs submitted, but without illustrations such comments are difficult to follow, and it seems sufficient to say that the competition designs are, on the whole, of an unusual order of merit. Very little work has been submitted which could be lightly dismissed as ill-considered.

Competitions seem destined to be a lottery to an extent which ought to be unnecessary; but as long as architects are, as now, divided among themselves on what are clear and fundamental issues, the confusion will continue to be marked. If Birmingham does not obtain the finest memorial to commemorate its dead it is not because a suitable design was not submitted, but because an assessor has erred in his judgment. We regret the decision made, not because the promoters have not secured the services of able architects and a good design, but because, having the opportunity of selecting a design of unusual character and excellence, the assessor has evidently made what appears to us a fundamental error as to type. The French undoubtedly understand such problems better than we do, as they more clearly differentiate them from ordinary utilitarian problems; and to a Frenchman many of the designs submitted would be surprising, and the choice made inexplicable.

Illustrations.

WORK OF THE LATE C. E. MALLOWS.

WESTERDUNES, NORTH BERWICK: ENTRANCE FRONT AND GARDEN FRONT. The late J. M. Dick Peddie, Architect.

This house was erected about 1909 for Patrick J. Ford, Advocate, M.P., to the designs of the late J. M. Dick Peddie. The photographs show the building as it was shortly after completion.

DOMINICAN CHAPEL, DUBLIN: PLAN AND INTERIOR. R. M. Butler, Architect.

This work presented several difficulties in design. The site is a narrow street frontage in Eccles Street, Dublin, a quiet old Georgian street on the north side of the city, and was obtained by the demolition of one of a number of the old houses now in the occupation of the Dominican Order, and part of a second house. The principal house of the series is old Tyrawly House, the town mansion of Lord Tyrawly, who was Barrack Master in Ireland in the eighteenth century. It is a very fine old house with a big garden, and the front drawing-room which has been converted into a nuns' choir, opening on to the new chapel, contains a fine modelled plaster ceiling of the eighteenth century. The difficulties of planning were considerable, lighting was not available from the sides, the chapel could not project towards the street, nor so far at the back as to interfere with the lighting of the adjoining houses; furthermore, the chapel must be placed upon the first floor, so as to leave the ground and lower ground floors available for class-rooms and a large refectory respectively, which in turn involved considerable difficulty in lighting. Light had to be obtained by a combination of ways, from the front, from the rear, and from a dome. In addition, the necessity of good lighting dictated a nave and aisles treatment for the chapel, enabling windows to be placed in the clerestory. As a result the chapel is abundantly lighted.

In order not to cumber the floors beneath with heavy piers the clerestory had to be carried on steel stanchions, which form the columns of the nave arcade, encased in scagliola. The form of the backs of the old adjoining houses suggested the plan of the back or garden end of the chapel forming an apse at the end, conversely to the usual practice of putting the apse at the eastern or chancel end, and as is sometimes found in Rhenish churches. The chancel is placed towards the street, a projection of oriel type affords a little extra depth. In the apse is placed a bow-fronted organ gallery which also accommodates a choir.

The front to Eccles Street is in dressed Wicklow granite, and the apse is faced with small Athy hand-made golden-brown stock bricks.

The detail is of simple Renaissance character influenced by Dublin eighteenth-century Georgian models, and in keeping with the interior of Tyrawly House.

The architect was Mr. R. M. Butler, F.R.I.B.A., and the contractor the late Mr. K. Toole, both of Dublin.

The Work of C. E. Mallows.*

Mr. Martin Kaye, the proprietor of "Academy Architecture," has brought out a very interesting collection of the work of C. E. Mallows, which has been gathered from back numbers of "Academy Architecture," and a few of which we illustrate in one of our insets. Mallows, like Rickards, was both a draughtsman of unusual gifts and an architect of note. Both of them have left behind them evidence of their skill in many unexecuted designs; but, while Rickards's reputation as an architect is chiefly shown in buildings of a public character, Mallows's principal work was almost exclusively domestic; and, while Rickards was associated with Lanchester from the time he commenced to practise, Mallows worked in conjunction with many men as well as carrying out work by himself. He was at one time or another associated with Grocock in Bedford, with Harry Quick, Brewill, and Baily in a competition for new Municipal Buildings at Coventry, with S. B. Russell in many competitions, with F. W. Lacey in his design for Municipal Offices at Bournemouth, the design of which so greatly delighted Norman Shaw; and with A. W. S. Cross in the competitions for the Wesleyan Hall and Peace Palace. In addition to these he planned the suggested Horse Guards improvements for Mr. Speaight, as well as making numerous drawings for architects in the capacity of an architectural artist.

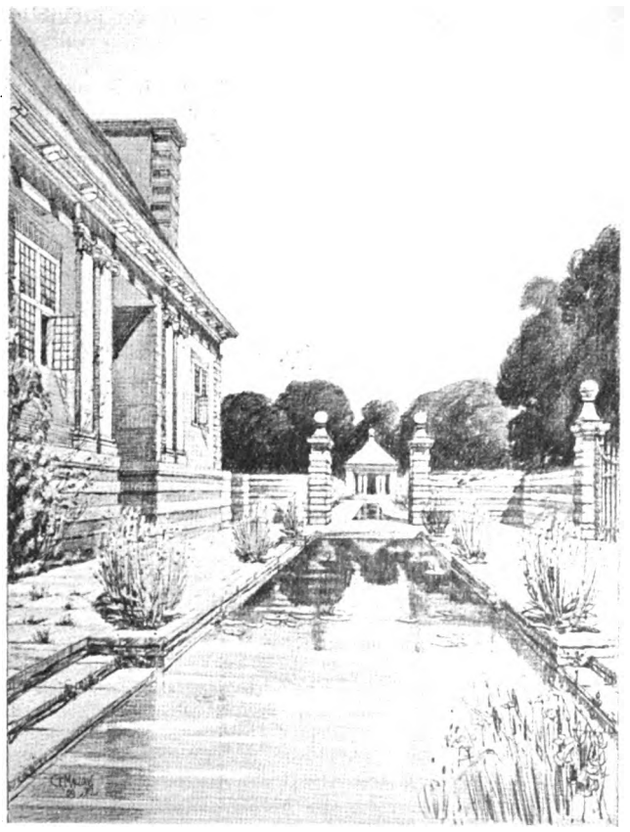
His natural bent in design was always towards a free and picturesque rendering of form; while, as his drawings show, he was keenly alive to the importance of the surroundings of a building, a fact proved by his numerous essays in garden design, a sphere in which he often worked in conjunction with Thomas Mawson. The design of the Coventry Municipal Buildings, dictated by the character of the surrounding mediæval work, is a very pleasing essay in Gothic composition of the slighter order, and is marked by pleasing and picturesque fancy of a very similar nature to that of Leonard Stokes. But it was the problem of the larger English house, with its gables, colonnades, and mullioned windows, which attracted Mallows most, and in which he was most in his native element, and his designs show that, while obtaining marked picturesque effects, his work was never without refinement and dignity, which fitted him to work out the problems of designs involved in large and stately schemes of building where picturesque effects were aimed at. His work was too dominated by his insight into the possibility of obtaining effects to be cheap and his detail was often intricate, while in general effect simple and straightforward. Probably for this reason many of his best designs have remained on paper. He died before he had ever attained a position which would have given

* Portfolio of the Work of C. E. Mallows, collected from "Academy Architecture," and published by B. T. Batsford, Ltd. 12s. 6d. net.

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A HOUSE. By C. E. MALLOWS.



A HOUSE AND WINTER GARDEN. HENLEY-ON-THAMES.
C. E. MALLOWS, Architect.

any of his peculiar talents their real opportunity—the association in partnership with an architect having large and assured practice of the best kind, who could have directed a nature which was pre-eminently that of an artist without any of the instincts of a practical business man. A smaller and more modest scheme for the Municipal Buildings at Bournemouth might probably have been carried out, but here both Mallows and the architect he was associated with were carried away by the desire to produce a group of buildings suitable to a site possessing unusual possibilities, and, as often had been the case in Mallows's career, his gifts of imagination actually proved a hindrance to his success. His career was an example of the way in which a man's greatest gifts may actually militate against his success, for without a partner who could supply the deficiencies of his nature, or a wealthy patron for whom he could have worked continuously, he was bound to labour more strenuously than many with little of his ability for a smaller measure of success. His colleagues, who will always cherish his memory with affection, will value this little portfolio of his work, which, at one and the same time, records his powers of draughtsmanship and design, while unfortunately convincing us that unusual merit may not always bring with it adequate and deserved results. We do not doubt that he had the compensation afforded men of genius—the delight of designing, and that a man with such pre-eminent gifts lived in a happy world of imagination unknown to many who achieve greater actual success. The idea of collecting the works of well-known architects in this simple and inexpensive form is a good one, and we trust that Mr. Martin Kaye will publish similar collections of the works of some of our contemporaries.

"BILJ"—The A.A. Pantomime.

We can with truth congratulate the Association on the amusing phantasy their members have conceived and on the skill of the actors, some of whom may, without exaggeration, be said to have a second string to their bows if the mistress Art does not adequately respond to their wooing. We were reminded generally of "Chu Chin Chow," but, if the staging and dresses were not equal to that production, the dialogue was infinitely more amusing. The "Sultan of Bilj" was a creation of genius, while "Bluebeard" evidently appealed both to those who had experience of the teaching staff of the A.A. and to those who had not. "Rococo's" suggestions of the Russian ballet belong to the world of Art, and were in every way masterly. "Gib," "Cotta," and "Aurelian" were excellent, particularly the first, while "Arabesque" was delightful, especially in her song of the powder-puff. If the male students of the A.A. can so successfully counterfeit feminine graces we may anticipate that in their professional careers they may be able to give us palaces of delight in the form of utilitarian warehouses. Our only criticism is that we were relegated to a late train by the length of the performance and its intervals, and have not yet sufficiently recovered ourselves from the influence of Morpheus to be able to write a masterly criticism of a great event.

The Architectural Association held a conversazione at 34-35 Bedford Square, W.C., on the 8th inst. There was a reception in the Library by the President, Mr. W. G. Newton, M.C., M.A., A.R.I.B.A., and members of council. In the ground-floor gallery there was an exhibition of modern pottery and tiles by the Royal College of Art and firms like Messrs. Carter & Co., Doultons, Heal & Son, and Pilkington. A very effective display of fabrics by Latham Francis, of Leamington Spa, was shown on the first floor. In the studios there was an exhibition of members' holiday sketches and photographs and students' work. During the earlier part of the evening a programme of music was given by a small Keith Prowse orchestra. This was followed by a dance arranged by the Lyric Club, at which the indefatigable and irresistible Spiders' Band officiated.

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Notes and Comments.

Sir Aston Webb's Address to Students.

Sir Aston Webb gave an admirable address to students of the R.A. Schools on the occasion of the distribution of prizes, in the course of which he once more showed the sympathy he always expresses so well for his younger friends. He referred to the importance of considering past work as a whole instead of concentrating attention on small details and "bits." This is quite to the point, as are also his references to the mistake of confining our attention too exclusively to the "garden of memories" of the past. At the same time we think the pendulum has possibly swung too far to one side of late years, and that the average student might with advantage devote more time to measuring and sketching like his predecessors in the 'eighties. There are many students now who devote time to making large sketch compositions of important and idealistic compositions in the French manner who might with advantage learn a little more of actual work by the hard and laborious means of measuring and sketching which were undoubtedly overdone in the past, but the results of which so enormously improved the quality of our work towards the end of last century and gave certain phases of it a European reputation. But the tide of opinion with such matters will always ebb and flow, but let us hope will result in the gradual raising of the waters of excellence.

Heights of Buildings in London.

Mr. Paul Waterhouse, Professor Pite, and others have written to the "Times" on the subject of the proposal to increase the statutory heights of buildings in the Metropolitan area. As Mr. Waterhouse reminds us, it cannot be said that the R.I.B.A. has given its collective sanction to the proposal, though a Committee has reported favourably on it. Mr. A. A. Hudson has written what is perhaps the most useful letter on the subject, in which he says that the Building Act aims at uniformity of heights, which is the last thing wanted if high buildings are in question. To allow such buildings to be erected everywhere on old foundations would be a mistake, but there are, as Mr. Hudson says, positions in which a high building placed among lower ones would both add to the architectural appearance of a neighbourhood, and possibly even direct currents of air through it, and so do positive good. The chief difficulty we see is that while it would be possible to take a map of any district in London and mark on it limited areas and positions in which it might be a positive advantage to permit the erection of higher buildings, the preferential treatment to owners of such areas would be equivalent to presenting them with higher site values, which their neighbours not so circumstanced would object to. This brings up our old friend the law of ancient lights.

The Law of Ancient Lights.

We are promised legislation covered by a clause in an omnibus Bill which will prevent the future acquisition of ancient lights, but this, although a step in the right direction, does not seem to go far enough. What is badly needed is the extinction of existing ancient lights, which may be defined as an unjustifiable custom, which deprives a man of the rights he should by equity have over his own property. This might be effected by an Act which would enable a man during a limited number of years to disregard rights of lights over his property on payment of a moderate fine to the neighbour who possessed such rights, coupled with a clause that after a period of ten or fifteen years all such rights should be extinguished if they had not been wiped out by purchase. This would release the owners of property of what is often an incubus productive of trouble and dispute, while, as in Scotland, everyone should possess rights over his property, as are sanctioned by the local by-laws of the authority in whose area the property is situated. This seems to us to be connected with the problem of higher building, since it would enable owners to put more accommodation on many sites, and would do much to obviate the ragged and unsatisfactory appearance of many areas within the City of London and other crowded districts. It cannot be described as an interference with owners' rights, but with easements over other properties which should never have been sanctioned by law or custom.

The White Lead Controversy.

The Chairman of the White Lead Corroders' Trade Section of the London Chamber of Commerce has sent us an excellent and moderate report on the findings of the Geneva Labour Conference on the subject of the use of White Lead. After describing the difficulties attending the deliberations of a polyglot assembly, he states that a committee of twenty-four, consisting of eight representatives of each Government, after sitting for fourteen days, reported by a majority of 12 to 11 in favour of dealing with the dangers attending the use of white lead by regulation instead of prohibition, which last had been previously rejected by a majority of 14 to 9. After this the draft convention submitted by representatives of the French Government, who had reported in favour of total prohibition by a majority of 45 to 44, was adopted as a basis for discussion. Dr. Legge, the Medical Inspector of Factories, appealed to the master painters and manufacturers to come to a compromise on the basis of internal prohibition, urging that such a solution would bury the whole controversy. Ultimately the following solution was arrived at and unanimously approved:—

1. Prohibition of the use of white lead and sulphate of lead and of all products containing these pigments in the internal painting of buildings, except for railway stations or for industrial establishments where their use is considered necessary by Governments after consulting employers and workers. The use of white pigments is permitted containing not more than 2 per cent. of lead expressed in terms of metallic lead.

2 Artistic painting or fine lining are free from prohibition.

3. Females and also males under eighteen years are to be excluded from painting with these pigments, with an exception for apprentices.

4. These prohibitions do not come into force until November 19, 1927.

5. Regulations (coming into effect not later than January 1, 1924) are prescribed for the use of white lead, sulphate of lead, and of all products containing these pigments in operations for which their use is not prohibited. These regulations are to be based upon the following principles:—

1. (*a*) White lead and sulphate of lead to be used only in the form of paste or paint ready for use.

(*b*) Avoidance of danger from paint spraying.

(*c*) Avoidance of danger from dust caused by dry rubbing down.

2. (*a*) Provision of washing facilities.

(*b*) Use of overalls.

(*c*) Storage of outdoor clothing.

3. (*a*) Notification and verification of cases of lead poisoning.

(*b*) Medical examination, if necessary.

4. Distribution of instructions as to hygiene to the painters.

5. Governments are to consult employers and workers' organisations in regard to the enforcement of these regulations.

6. Provisions are to be made for obtaining and recording in each country statistics of lead poisoning among painters.

As we understand that the solution arrived at satisfies those interested in the white lead industry, it is to be hoped that an acute question has been satisfactorily solved.

At a general meeting of the Royal Institute of British Architects held on December 5 the election took place of 15 Fellows and 111 Associates (nearly all of the latter went through the Special War Examination).

In the year prior to the outbreak of war 9,900 buildings were completed in New South Wales, at a cost of £7,000,000. During the war period the lowest point was reached in 1918, when only 5,000 buildings were erected, at half the above cost. During the year just closed, 1920-21, 9,700 buildings were completed, at a cost of £9,500,000. The latter figures include 1,050 houses erected by the War Services Homes Commission.

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The World of Art.

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I mentioned last week the Memorial Exhibition of paintings, drawings, and etchings by the late William Strang, R.A., as one of exceptional importance; and a second visit to the rooms of the Fine Art Society has only confirmed that impression. The present exhibition, as Mr. Laurence Binyon points out in his prefatory note, aims at showing a representative collection of Strang's work in every side of his art—in oil paintings, drawings, pastels, and etchings; one side of his art, however, the portrait studies in the manner of Holbein (one could, I imagine, take "The Quakeress" and "Nancy" under this class), though not neglected, being less fully represented. When I mention that there are sixty oil paintings here, sixty-five drawings, and nearly two hundred etchings, it will be seen that the display, which fills both rooms at the Fine Art Society, is fairly representative.

William Strang is an interesting, an attractive, and yet sometimes a disconcerting artist. Mr. Binyon says of him that, "trained in a severe school"—under Legros at the Slade School—"Strang might be called 'academic' in the good sense of that word; yet he was sensitive to the contemporary atmosphere, and now and again would adopt another manner in an impulsive, sometimes almost freakish, fashion. He could not resist experimenting in a spirit of adventure, and was little concerned whether the experiment failed or not." We meet with several of these adventures in the present exhibition; and the result is not always satisfying. In a notice of this painter in "The Studio," written actually before he was taken from us, the writer says: "Strang is not readily rubricised: he is neither an Academicist nor a Classicist, nor a Romanticist; neither an Impressionist nor a Post-Impressionist; he presents himself, indeed, to the impatient or merely casual observer in Protean illusiveness. Yet Strang is not only a very solid and unevasive personality, but a singularly simple and ingenious one to boot."

Born in Dumbarton, the son of a builder, he was put into the office of a Clyde shipbuilder, when it befell him to run away to sea; this adventure eventually landed him out of the building trade and into the Slade School in London, where for six years he worked under Legros, and became the French professor's assistant in the etching class. As an etcher, in fact, and as a draughtsman William Strang is at his best: his etched work includes more than seven hundred plates, and though he was a loyal follower of his teacher Legros, he could not keep within any rigid tradition in art. Hence, too, his etched work is extraordinarily varied and unequal in interest and inspiration. He has at times a sort of impulse toward the grotesque, the horribly "macabre," like that of the Spanish Goya, which finds its most powerful expression in Strang's wonderful plate of "Anarchy": the faces of the armed crowd, surging through some city gate, excited, furious, or evil, contrast with the cowled form of the skeleton who sits quietly watching the scene with a sinister and horrible smile, as foreknowing (and here modern Russia comes involuntarily into our thoughts) that Death alone would have the richest harvest.

Less effectively a whole series of plates follow the same train of ideas; while elsewhere we get the frankest, most uncompromising realism in such a scene as "Fried Fish," work classic in the best sense in "The Fisherman," or the etching for the "Love Song"; finely handled portraits such as those of Thomas Hardy, Rudyard Kipling, Emery Walker, and Bernard Shaw; architectural studies such as the "Quay of the Rosary, Bruges," whose finished detail recalls the work of Meryon, and such finely imaginative creations as his series of Christ's Passion. As a draughtsman the artist reached a very high level, among his best drawings shown here being the figure study of "Laughter" for the picture of that title, one of his most brilliant works which we should like to have seen again here. As a colourist he was not so successful, or rather in these paintings we feel the man as an eclectic, inspired by the great Venetians in such a Giorgionesque harmony of rich tones as we find in "The Love Song," by G. F. Watts, in the figures of primitive man and woman "In the Beginning," perhaps by Millet in "The Kiss"—yet with all this revealing himself in his work, and preserving throughout a high level of technical achievement and absolute sincerity.

At Claridge's Hotel there was opened for three days, on December 7, an exhibition of the paintings of the Italian artist, Edoardo Gioja, in aid of the Italian Hospital in London, which, I understand, badly needs support. The exhibition, which was formally opened by Donna Antonietta de Martino, wife of the Italian Ambassador, consisted, with some oil paintings, mainly of studies of the Roman Campagna, with some subjects from Genoa and Sorrento, pastel being the medium chosen by the artist and handled very cleverly.

Mr. Wynford Dewhurst is now showing at Walker's Galleries his oil and pastel paintings of Versailles and Switzerland. In the latter field of subject he treats frequently and to good effect ("Villeneuve, Sunrise," and "A Study in Blue"), the end of the Lake of Geneva, which is closed by the superb line of high mountains dominated by the Dent du Midi. Besides those just mentioned I liked his two paintings of "Sun Haze on Alpine Peaks" and "Sunrise over High Alps," and the "Glen Falloch, Loch Lomond." Versailles has been a good deal painted of late, and such a scene as "Palace of the Grand Trianon," dull in subject and treatment, leaves us cold.

"British Water-colour Painting of To-day," published this month by "The Studio," consists of twenty-four admirable colour reproductions from the work of the same number of our leading water-colour artists, with a prefatory note of two pages, which, in fact, in such an interesting theme as this presents, we could have wished to be longer. Among the most successful plates are those from Anna Airy, William Walcot, Davis Richter, Robert Burns, Brangwyn, and Sargent; the "Mannequins," sent by Russell Flint, is wonderfully clever, but scarcely to my mind so characteristic of this artist as (for instance) his works in the present R.W.S. Exhibition.

This month has also appeared from "The Studio" office a very important work reproducing "The Etchings of Charles Meryon," with an introduction of twenty-four pages by Mr. Campbell Dodgson, M.A., keeper of prints and drawings at the British Museum. A century has now passed since the birth of that great and unhappy artist, Charles Meryon, who was born in Paris on November 23, 1821; so that the moment is most appropriate for this work to appear, and its treatment is entirely satisfying both in text and illustrations. Meryon chose architecture, and more directly the architecture of Old Paris, as the subject of his life work in etching; he had the curious plan in drawing architecture of working upwards from the bottom of his subject, arguing that buildings began from the foundation, and the artist should do the same, and he seems to have done the same with human figures. In any case, the result justified the method, and such a creation as "Le Petit Pont," dominated by the towers of Notre Dame, which is the first of his mature etchings, could hardly be excelled. In his "Eaux-Fortes sur Paris" he achieved a series, between 1850 and 1854, which may be said to have led the way to modern etching. In this connection it is interesting to note that "The Studio" will issue in the spring of 1922 a volume on the etchings of J. McNeill Whistler, which will form a companion work to that of "The Etchings of Charles Meryon."

S. B.

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Royal Academy Schools.

The annual prize distribution to students of the above schools took place at Burlington House on Saturday, the 10th inst. For the first time since his election the ceremony of presenting the prizes was performed by Sir Aston Webb, the President. Last year he was prevented, it will be remembered, by illness. Sir Aston Webb was supported on the platform by a large number of members and associates.

List of Prizes and Prize Winners.

Historical Painting, "Christ appearing to two Disciples on the road to Emmaus" (St. Luke xxiv.), R.A. Gold Medal and Edward Stott Travelling Studentship (£200), John Cosmo Clark.

Landscape Painting, "A River Scene: Sunset," Turner Gold Medal and Scholarship (£50), Agnes Clara Tatham.

Landscape Painting, "A Rocky Landscape, with Trees," Creswick Prize (£25) and Silver Medal, Marguerite Hannah E. Gordon.

Design in Monochrome for a Figure Picture, "The Brazen Serpent," Armitage Prizes, 1st (£30) and Silver Medal, not awarded; 2nd Prize (£10) and Bronze Medal, Agnes Clara Tatham.*

Design for the Decoration of a Portion of a Public Building, "An Arcadian Scene, with Figures," 1st Prize (£30) and Silver Medal, not awarded; 2nd Prize (£10) and Bronze Medal, Anna Katrina Zinkeisen.*

Composition in Colour, Prize (£10) and Silver Medal, Anna Katrina Zinkeisen.

Cartoon of a Draped Figure, "Cæsar lying dead at the base of Pompey's Statue," Prize (£25) and Silver Medal, Dorothea Frances Blake.

Two Paintings of a Figure from the Life, 1st Prize (£10) and Silver Medal, Emily Edith C. Grant; 2nd Prize, Bronze Medal, Agnes Clara Tatham.

Portrait Study of a Lady in Evening Dress showing Arms and Hands, Arthur Hacker Prize (£30) and Silver Medal, the late Cecilia Frances Forbes-Robertson.

Painting of a Head from the Life, Life Size, Arthur Hacker Prize (£20) and Silver Medal, Agnes Clara Tatham.

Perspective Drawing in Outline (open to Painters and Sculptors only), "The Entrance to the Schools Corridor," Prize (£5) and Silver Medal, no competition.

Set of Four Drawings of a Figure from the Life, 1st Prize (£15 and Silver Medal), the late Cecilia Frances Forbes-Robertson, 2nd Prize (£10) and Bronze Medal, Emily Edith C. Grant.

Drawing from the Antique, Prize (£5) and Silver Medal, not awarded.

Composition in Sculpture, "Diana and Endymion," R.A. Gold Medal and Edward Stott Travelling Studentship (£200), John Rattenbury Skeaping.

Model of a Design, 1st Prize (£30) and Silver Medal, 2nd Prize (£10) and Bronze Medal, no competition.

Two Models of a Bust from the Life, 1st Prize, Silver Medal, 2nd Prize, Bronze Medal, no competition.

Model from the Antique, Prize (£5) and Silver Medal, no competition.

Design in Relief, containing Figure and Ornament, "A Carved Ivory Book Cover," Prize (£5) and Silver Medal, no competition.

Set of Three Models of a Figure from the Life, 1st Prize (£15) and Silver Medal, Charles William Dyson Smith, 2nd Prize (£10) and Bronze Medal, Daphne Mayo.

Design in Architecture, "A Municipal Theatre," R.A. Gold Medal and Edward Stott Travelling Studentship (£200), Cyril Farey.

Set of Architectural Drawings, "The Lord Mayor's Vestry in St. Paul's," 1st Prize, Silver Medal, not awarded; 2nd Prize, Bronze Medal, John Lyne Harvey.

An Architectural Design, Prize (£20) and Silver Medal, Daniel Roy Lyne.

Set of Drawings of an Architectural Design, 1st Prize (£15) and Silver Medal, James Francis Mason, 2nd Prize (£10) and Bronze Medal, John C. Gladstone Knight.

Perspective Drawing in Outline (open to Architects only), "The External Doorway, South Tower, West Front of St. Paul's," Silver Medal, Romilly Bernard Craze.

* Ineligible through having received the same prize before.

Landseer Scholarships in Painting and Sculpture, of £40 a year each, tenable for two years, have been awarded—in Painting to Dorothea F. Blake and Anna K. Zinkeisen; in Sculpture to Charles W. Dyson Smith and Daphne Mayo.

The President's Address to Students.

Sir Aston Webb commenced his address by remarking that since 1914 they had not had a "Royal Academy Gold Medal Night." Since then they had lost a President, Keeper, a Curator, and a large number of members. The students were to be congratulated on the appointment of Mr. Charles Sims as Keeper and head of the Schools. The war, of course, dispersed the students and disturbed the Schools, and they could hardly be said to have yet overcome its effects. But the general opinion was one of congratulation on the present exhibition of work. As President he wanted to congratulate especially those fortunate three who had won the Royal Academy Gold Medal and Stott Travelling Studentship. This was the first time the name of Edward Stott had appeared in connection with these Travelling Studentships, he having left at his premature death money for their endowment. The winners of the gold medals incurred also a responsibility to produce work during their career worthy of themselves and their predecessors in such a great distinction. But there were many famous names of students who never obtained that honour, and which proved that the real prizes of life are still open to all those who strive and work to win them.

Mrs. Abbey, widow of their late distinguished member, had sent a cheque for £100 to be administered by the Keeper towards the purchase of materials to enable students under supervision to carry out designs for mural painting in spaces which would provide the architectural surroundings required for such work. If this experiment proves successful Mrs. Abbey is willing to repeat her offer another year. The Royal Academy has since been in communication with those who hope to offer spaces for decoration in actual buildings.

Sir Aston Webb, in alluding to the work of the students exhibited in the galleries, quoted the criticisms of Mr. Sims as to the Painting School, Mr. Poole, who is in charge of the Sculpture School, and Mr. Ernest Newton, one of the visitors of the Architectural School.

Mr. Ernest Newton had written:—

Many of the drawings sent in for the Royal Gold Medal and Travelling Studentship reach a high standard of excellence. The problem has been attacked with considerable skill and confidence. The schemes generally are on rather a larger scale than would be required for a theatre to seat 500 to 550, but this is perhaps a fault on the right side. Some of the plans have been rather marred as practical schemes by making so much of the grand staircase that the entrance to the seats suffers, and in nearly all there are too many important entrances. Some of the plans have too much spare space which cannot be properly allocated to any useful purpose. One plan appears to have no less than six large refreshment-rooms. But, taken as a whole, the designs show that the difficulties of the subject set for the competition have been clearly grasped and ably overcome. The promise of the plans is not in all cases quite carried out in the exterior, though there are notable exceptions. The draughtsmanship varies considerably, the best being exceptionally brilliant. Every competitor for this prize may be congratulated on the result of his strenuous labours. Obviously everyone cannot be placed first, but it is also obvious that every competitor has done his best to earn that enviable distinction. None of the sets of architec-

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tural drawings for silver and bronze medals, for which the subject set was the Lord Mayor's Parlour in St. Paul's, reach a high level, and so the bronze medal only is awarded. There are only two competitors for the £20 prize and silver medal for an architectural design executed in the school during the year. Both are competent and well executed designs. For the £15 and £10 prizes and silver and bronze medals for an architectural design executed in the school between October 1, 1920, and July 31, 1921, by students in their first term there are several entries. The quality both of design and draughtsmanship varies a good deal, but considered as first-term work a certain inequality is perhaps to be expected. There is only one entry for the silver medal for a perspective drawing in outline and a drawing exhibiting the scientific projection of shadows in perspective. The subject set was the External Doorway of the South Tower of the West Front of St. Paul's, and the drawings are a competent rendering of the subject.

Addressing the students concerning the career they were entering upon, Sir Aston said he felt sure they were full of enthusiasm and determination to produce what would not only appear beautiful to themselves but which would communicate to others a sense of beauty which they were not conscious of before. Lord Leighton once said, "Art is based on the desire to express and the power to kindle in others an emotion astir in the artist but latent in those to whom he addresses himself." There was a large amount of preliminary work to be done in overcoming the various technical difficulties which surround all branches of Art, and which must be mastered and converted into servants. The schools can only teach the use of tools, the ideas must be the student's own. Until the student has gone through the drudgery he will never produce anything worth preserving.

In the past there used to be a love and demand for beauty, and artists were rewarded with every honour and distinction. The nations of Egypt, Greece, and Italy each in their turn raised great buildings in which to celebrate their victories, to exercise their religion, or to carry on the work of the State and its municipalities. They looked to it as a matter of course that their buildings should be noble, and expressive of their purpose, and that artists should adorn the spaces provided in them with painting and sculpture of the highest order.

The progress of Art in those times was ordered on natural and traditional lines in which a whole people were interested. Whereas now tradition seems to be little regarded and each man has become a law unto himself. He leads no one and is by no one led, while a general love for Art and Beauty stands at the moment at a low ebb.

After meeting hindrances and disappointments there will perhaps come moments of doubt to the student which may cause him to wonder whether he had not made a mistake after all, whether his work is really wanted, and whether he might not have done wiser to take up some other calling. But first let him consider what Art really is: Is it so ephemeral a thing, a mere sport or pastime to be taken up and laid down at will, or rather is it not part of Nature's natural law inborn and bred in men and invariably developed in them? In the past there always has been a desire among the people to beautify their surroundings; and, though at the present time we may be passing through a phase of comparative indifference, there is evidence that some desire still exists, and it will be for the present generation to assist in its further development.

A single individual may found a school, but it takes a nation to found a great tradition: hence the great advantage in the association of artists in all branches of the Fine Arts in such an institution as the Royal Academy. But in order to found a worthy tradition there must be a genuine desire for the advancement of Art as a whole. We have surely had enough fighting to last a lifetime. And what the better are we or anyone else for it time only can show. This is a time for peace, for composing differences and encouraging the schools to join in an endeavour to work together for the progress of Art as a whole. Friendly rivalry is all to the good, bitter antagonism all to the bad.

A tradition need in no way fetter the individuality of the artist, but should act like the flywheel of an engine which prevents sudden jerks and jumps, and secures to the machine a steady progression of the various component parts, each working together in its own way but as a complete whole. So we, who are suffering just now from some very obvious bumps and jars, caused very possibly by the general disturbance of the war, should find a recognised tradition helpful in steadying us.

There was a fine tradition in the Art of Architecture in England from the time of the Norman Conquest to the end of the eighteenth century. Thus for some 700 to 800 years England did possess a progressive architectural tradition accompanied at the same time by great individuality, which has left monuments that still excite the admiration of the world, such as our great churches and houses scattered all over the country, and yet producing in its course and in an orderly way such contrasts as Westminster Abbey and St. Paul's Cathedral.

During this time the sister Arts were making comparatively little progress in England. Though all our buildings from the time of the Conquest show attempts in colour decoration and sculpture, it cannot be said—with the exception, perhaps, of stained glass—that a tradition of either painting or sculpture (other than architectural and monumental sculpture) was founded. Had it been otherwise it is easy to imagine what a different state the Arts of England would have been in to-day.

Wren did his best to found a tradition in all three Arts. In Painting he gave Thornhill and others some splendid opportunities; and in Sculpture he very largely employed Grinling Gibbons, Pierce, and others. But though they left many imitators they cannot be said to have founded a permanent tradition. From the time of Henry VIII. and Charles I. onwards, the Court and Nobility became in a way patrons of Art; but their patronage was largely given to other than Englishmen. And so again no English school or tradition was founded. To-day there is a somewhat similar tendency among so-called patrons of Art who by the purchase of Old Masters do little towards an enlightened encouragement of contemporary English work.

It was somewhat curious to note that as a tradition of British painting, fostered by the founding of the Royal Academy, advanced, British architecture lost its fine tradition; and Sculpture had not yet taken up the position that was its due, with the result that the three Arts have never yet flourished and advanced at the same time in this country as they did, say, in Italy and Flanders during the fifteenth and sixteenth centuries, and as they must do here if we are to produce the finest and most complete work.

Some fine buildings have been erected during the period since the founding of the Academy, but of widely different styles, such as Elmes's St. George's Hall, Liverpool; Sir Charles Barry's Houses of Parliament; Norman Shaw's Scotland Yard. It must be admitted, however, that revivalism rather than tradition is chiefly shown in these buildings, though the Houses of Parliament gave a great encouragement to painting and sculpture and the subsidiary Arts.

But there are signs that Architecture, too, is again tending towards a more orderly progress which may result in the founding of a recognised School, and later on, again, a great tradition.

Sir Aston said he would warn young artists against allowing the fascinating study of the Past to side-track them off the important and hopeful study of the Present and the Future. They should be, as Sir William Watson said, "true lovers of the Past who do not scorn to take good heed to what the Future saith." It was delightful to linger in the Garden of Memories, but that must only be a necessary preparation for entering into the real business of life, the workshop of hope, sincerity and production.

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The useful study of the work of past Masters appeared to Sir Aston Webb to consist in the study of each work as a whole, whether it be Painting, Sculpture or Architecture. Not to pick out bits here and there but to try and understand the complete composition and design, for if it is a great work it must possess that sense of design and completeness, a sense of proportion and form produced possibly not by rules but by perception and feeling. If the student tries to see how the proportion, the light and shade, the colour and form, emphasise the design, he will find that the study of these as shown in great works will so sink into his mind that he will become free to give attention to the imaginative and emotional qualities in his own work, which, if it is to move others, must be entirely his own.

In the story of Contemporary Art very much will be found to distract. In Painting especially great and varied executant ability will be found combined, perhaps, with brilliant technique. But it must be remembered that execution and technique alone—though of great interest to the artist—will never move the emotions of the spectator or set his mind aglow. Contemporary work must be tested by one's own feelings and principles. If it comes up to them one must not be afraid to stand by it, for Art, like everything else, must progress and change. Novelty is not wrong—quite the reverse, it is necessary—for mere reproduction of previous successes is not progress, and interests no one over much. On the other hand, one should beware of mere cleverness without thought or purpose. Such work has been well described as showing "Carelessness without grace, and individuality without distinction." These men acknowledge no master and leave no pupil.

Students should endeavour to surround themselves in their homes with a few good and simple things: good Art is not necessarily expensive, as some seem to suppose.

If there is to be a real Art renaissance in England the three Arts must march on together hand in hand, and it is essential that students, who will be the artists of the Future, should get to know each other: to admire and, if it may be, love each other's work now. Students should not be in too great a hurry to exhibit their work or start on their own account. They must learn to labour and to wait.

In this connection Sir Aston Webb gave the following personal reminiscence: "I was articled at seventeen (far too early) for five years, then travelled for a year and started sharing for twelve years a two-pair back and an office boy in a murky street under the shadow of the Charing Cross Hotel. On the First Floor was a fairly successful architect; and when we heard from our loft above steps on the creaky stairs they mostly seemed to stop and knock at the door of our successful friend on the First Floor; but if, with beating hearts, we heard them coming up to us, it was usually a traveller to try and sell us something we did not want or something we could not afford. During my apprenticeship (we have no apprenticeship now) I spent much time measuring with shivering fingers the bare brick walls of the buildings then rising round the courtyard of Burlington House for my master, who was designing the finishings of the various libraries and lecture-rooms. In my wildest moments it never occurred to me that through the whirligig of time and the extraordinary indulgence of my colleagues I should find myself addressing you from this chair. Each French soldier is said to carry, unknown to him, a marshal's baton in his knapsack; he apparently is not the only one. There is probably among you an unknown future occupant of this chair—it may be, who can tell, a lady."

Reverting to the more general theme of his address, Sir Aston suggested that Art might, perhaps, have a larger influence in the world if those who practise it took a somewhat more active interest in the affairs and welfare of the cities and people among whom they live. Beauty and a sense of beauty in its widest sense was essential to the full enjoyment of life and to the full development of one's powers. How could life be sweet and pleasant passed in the hideous surroundings of many of our cities and suburbs? Atrocities continue to be perpetrated year by year and not a voice is raised against them. Students might and should be missioners in their respective districts, amongst their immediate friends at first, and gradually in wider spheres, for a larger recognition that æsthetics and amenities are essential aids to both health and happiness. There might be in the neighbourhood a portrait to be painted, a small war memorial to be put up, decorations required for a function, an open-air play, or what not. The student could assist in obtaining the best artists available in each case. The neighbours would pay attention if they felt the student's only desire was to do the best possible and that he had no ulterior motive. And so by degrees the student will be looked up to by all his neighbours in such matters, and be asked to take on greater public responsibilities. This should not be refused if it can be done without interference with work. It was the duty of all who could give up a certain proportion of their time for the public good to do so.

Students of the Royal Academy, said Sir Aston Webb in conclusion, ought to remember that they were following a great calling, and were members of no mean City and Empire, and that this membership brought with it much responsibility. They must do all they could to be worthy of it.

"Take a place in the ranks that await you;
Each man has a part to play.
The Past and the Future they're nothing
In the face of the great To-day."

Royal Institute of British Architects.

The following notes are from the minutes of the R.I.B.A. Council meeting on December 5:—

Street Improvements and the Architectural Development of the City of London.—It was decided to refer to the Art Standing Committee the consideration of a request from the City Lands Committee, conveyed to the Council by the City Surveyor, for an expression of the views of the Royal Institute on this question.

The Building Exhibition, 1922.—It was decided to take part in the organisation of the "Architects' Welcome Club" at the Building Exhibition at Olympia.

The Imperial Institute and Timber Research.—It was decided to send to the Prime Minister, the Colonial Secretary, and the High Commissioners for the Dominions a resolution in favour of the continued maintenance at the Imperial Institute of the valuable collection of building timbers of the Empire.

London Street Architecture.—The Council appointed the jury to draft and issue the conditions of the award.

Exhibition of Working Drawings.—It was decided to arrange in the spring of each year an exhibition of working drawings of completed buildings for the guidance of students.

Sanitary Inspectors' Examination Board.—Mr. H. D. Searles-Wood was re-appointed to represent the Royal Institute on the Board.

The Royal British Colonial Society of Artists.—Mr. W. E. Riley (F.) was appointed to represent the Royal Institute to the Royal British Colonial Society of Artists.

Retired Fellowship.—Mr. A. B. Plummer (F.) was transferred to the class of Retired Fellows after thirty-two years of subscribing membership.

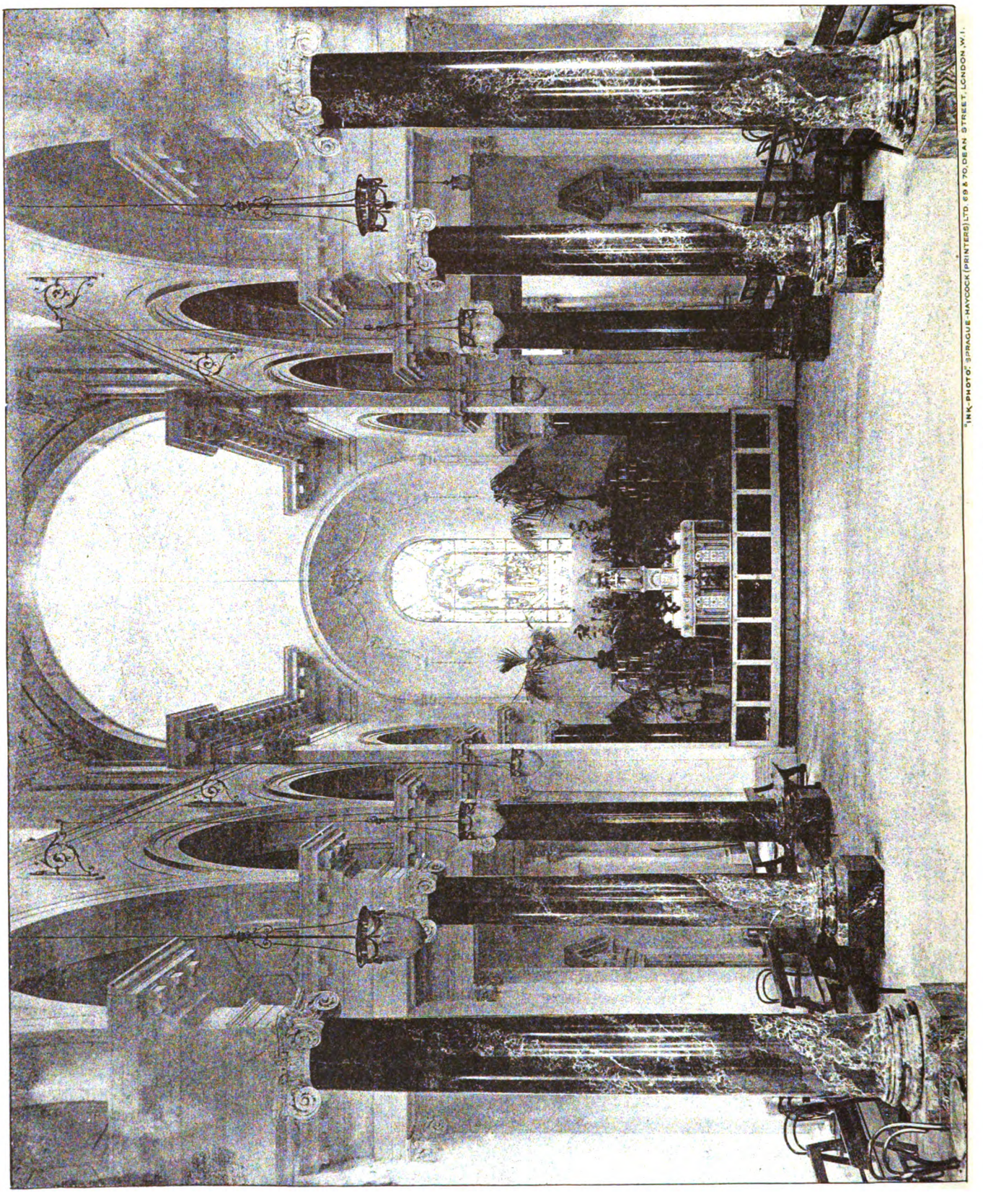
Conjoint Board of Scientific Societies.—Mr. H. D. Searles-Wood was re-appointed to represent the Royal Institute on the Conjoint Board for the year 1922.

The second annual R.I.B.A. conference is to be held next summer in Cardiff, by arrangement with the South Wales Institute of Architects.

The Brighton Education Committee, in view of the present economic conditions and the financial advantages obtainable by local authorities, have recommended the Town Council to erect the Loder Road Elementary School, at an estimated cost of £27,295. It will accommodate 836 pupils

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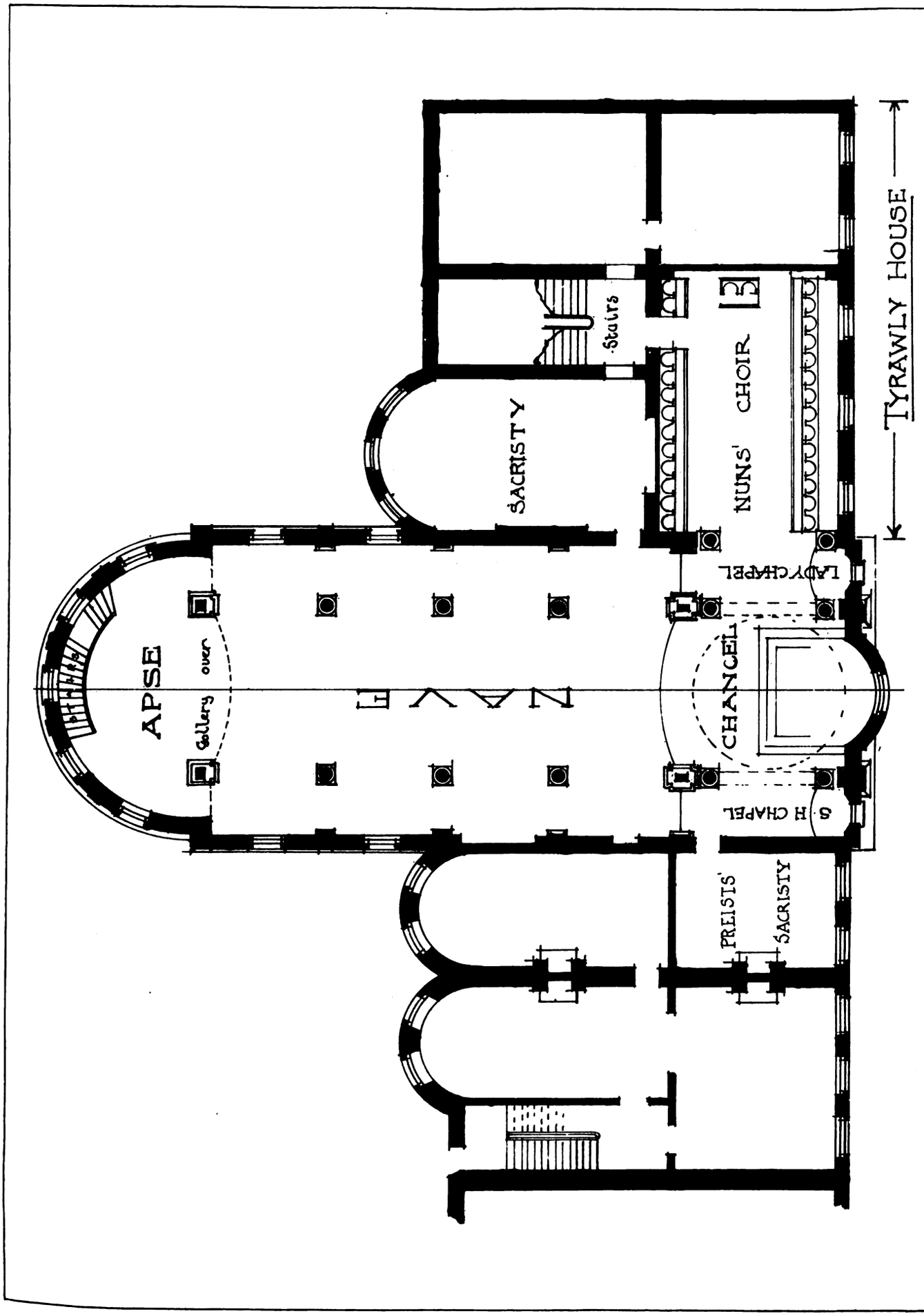
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DOMINICAN CHAPEL, DUBLIN: INTERIOR.
R. M. BUTLER, ARCHITECT.

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DOMINICAN CHAPEL, DUBLIN: PLAN.

R. M. BUTLER, ARCHITECT.

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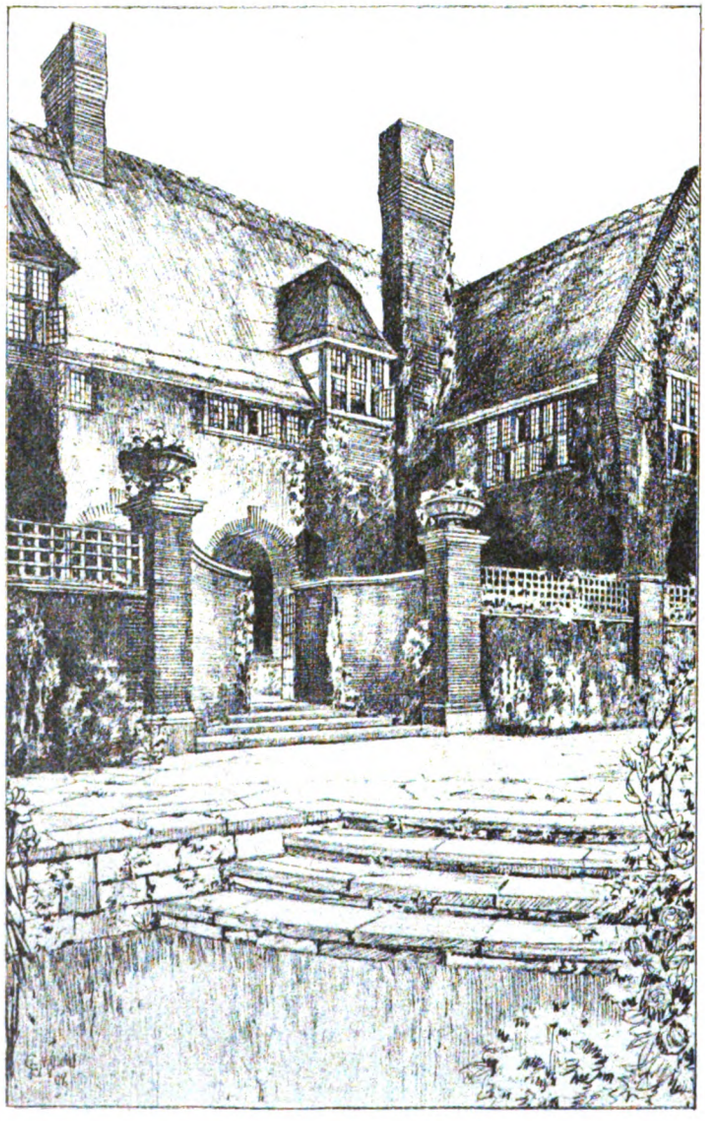
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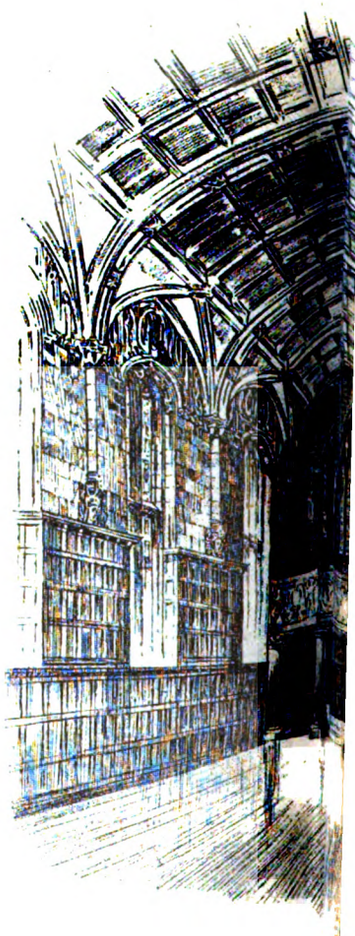
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New Municipal Buildings, Coventry, Selected Design, HARRY QUICK, BREWILL AND BAILY, AND C. E. MALLOWS, Joint Architects.

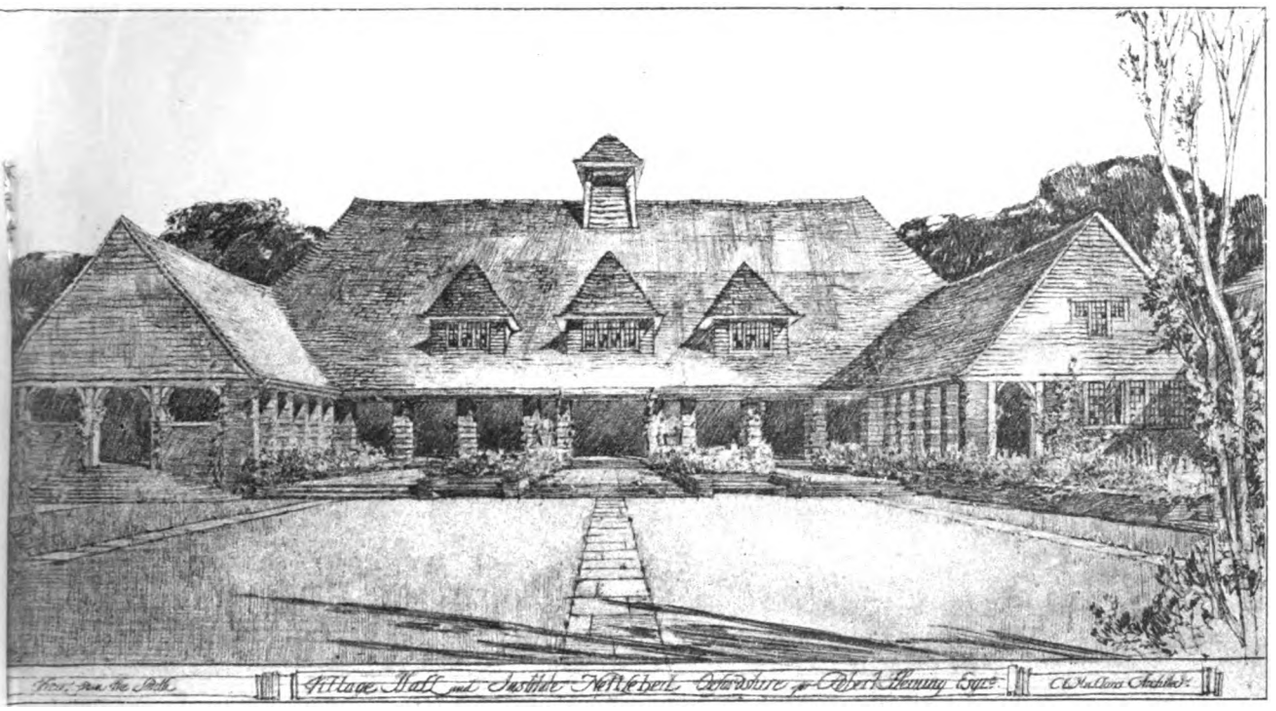


House at Happisburgh, Norfolk, C. E. MALLOWS, Architect.

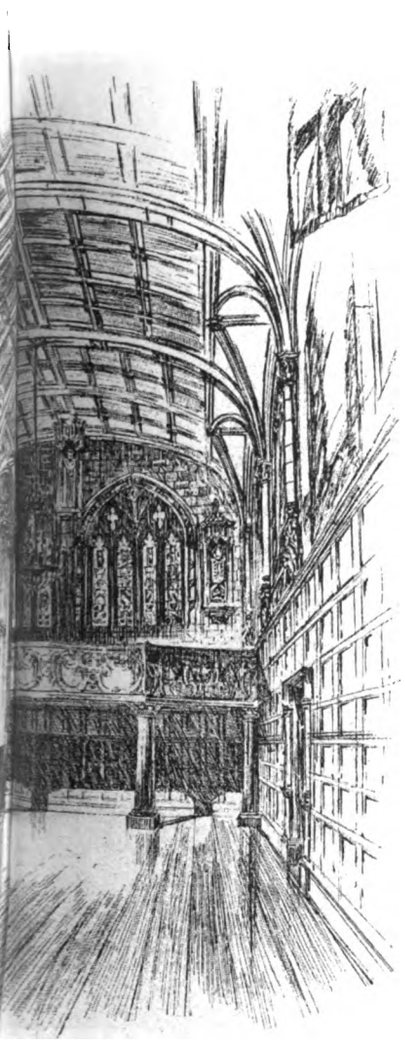


New Municipal Buildings, Coventry, View of [illegible] BAILY, AND C. E.

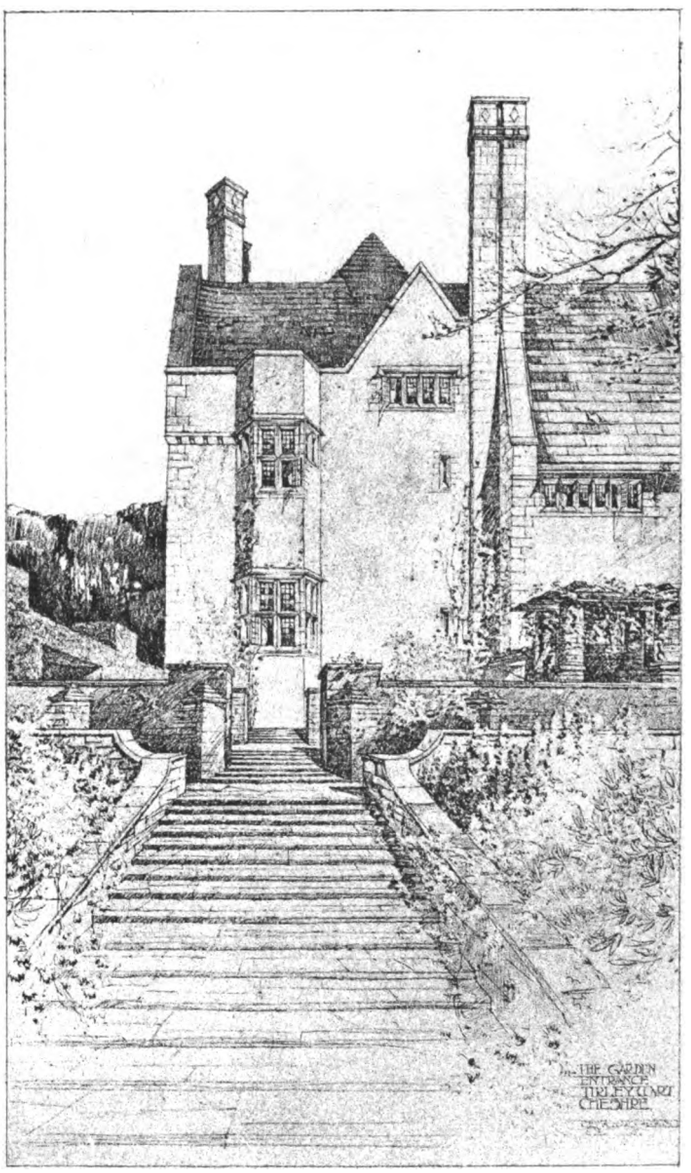
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Village Hall and Institute, Nettlebed, Oxfordshire, CHARLES E. MALLOWS, Architect.



...l Chamber, HARRY QUICK, BREWILL AND ...LOWS, Joint Architects.



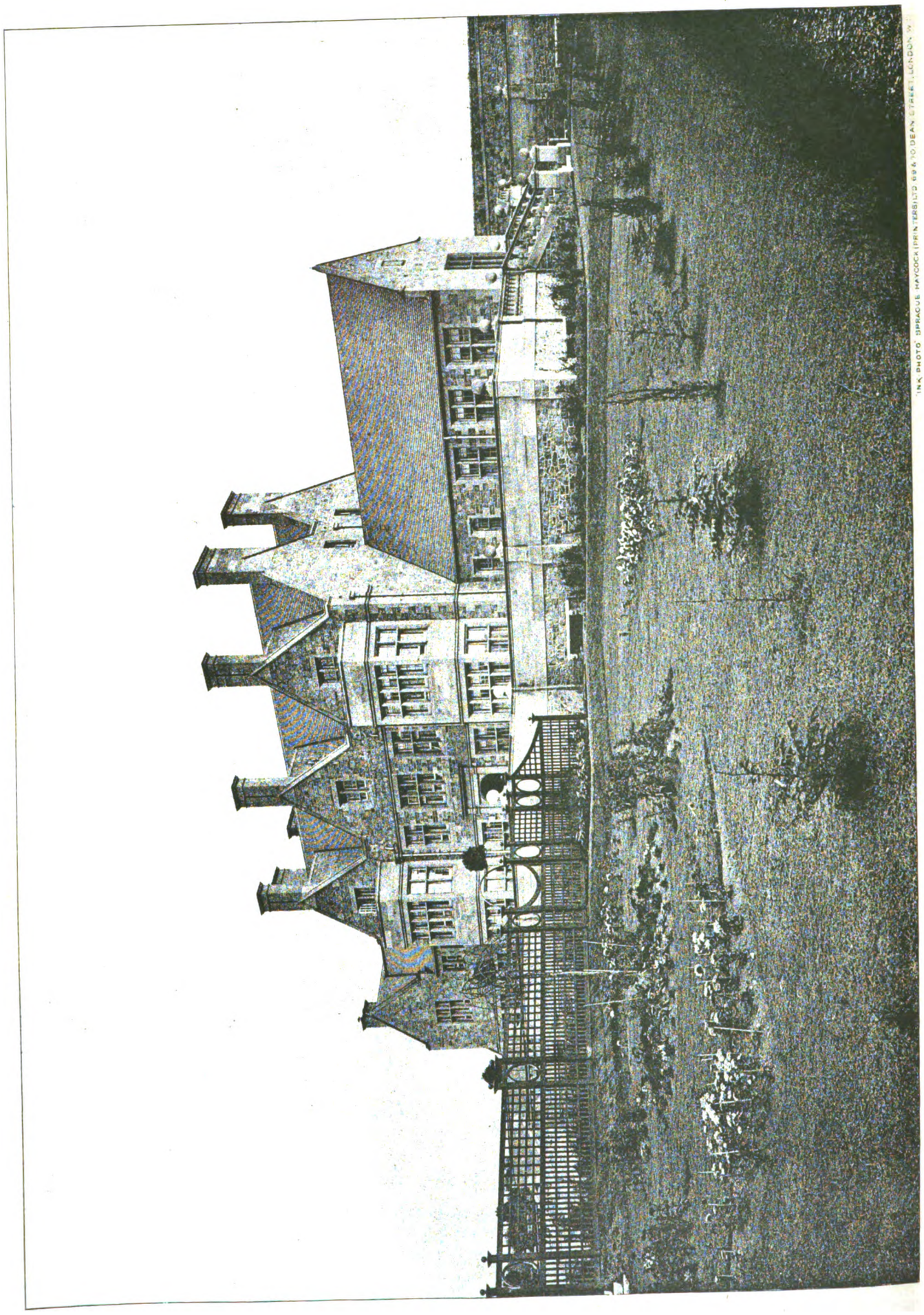
The Garden Entrance. Tirley Court. Cheshire. C. E. MALLOWS, Architect.

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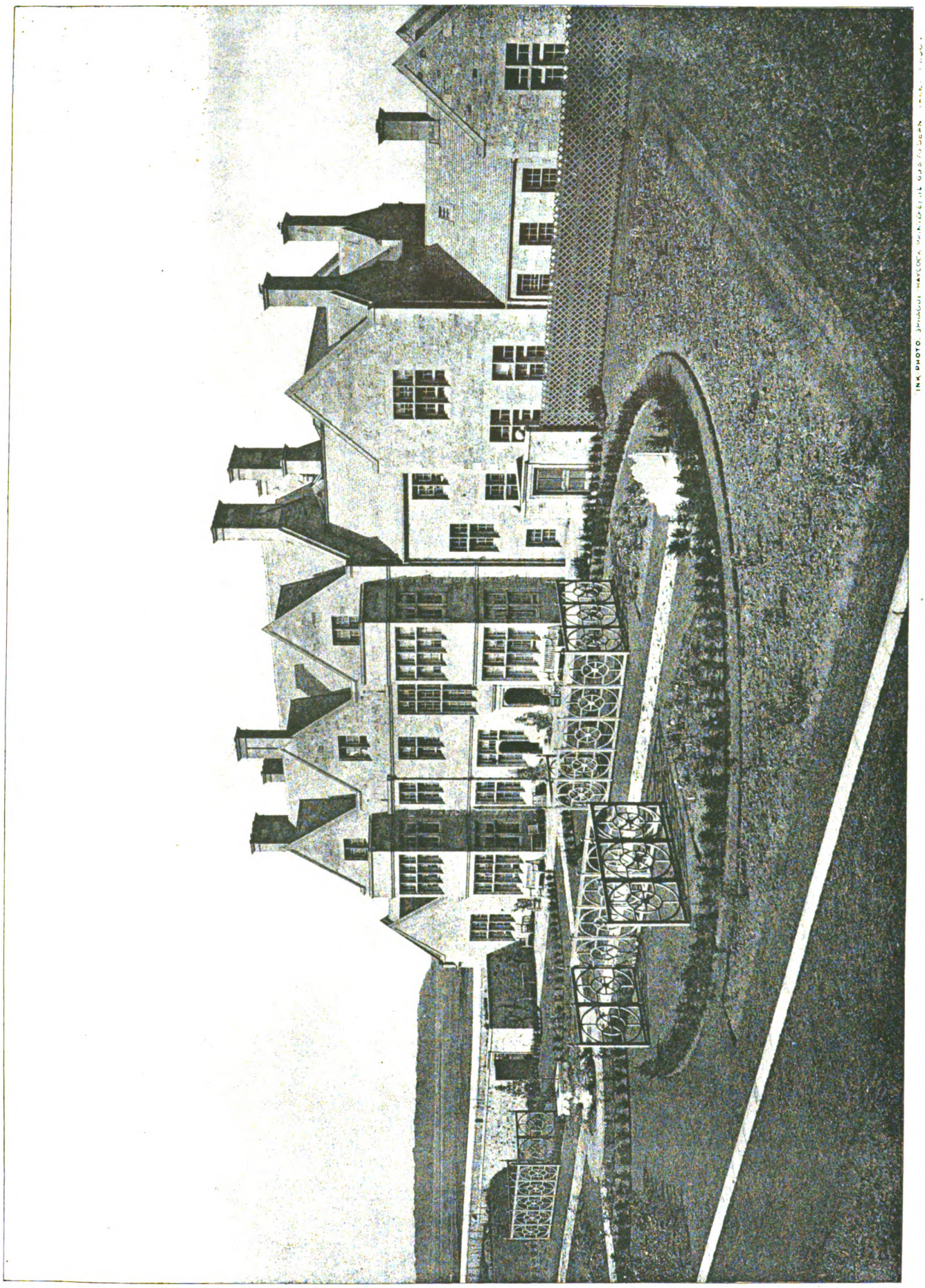
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WESTERDUNES, NORTH BERWICK: ENTRANCE FRONT.

THE LATE J. M. DICK PEDDIE, ARCHITECT

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WESTERDUNES, NORTH BERWICK: GARDEN FRONT.

THE LATE J. M. DICK PEDDIE, ARCHITECT.

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Correspondence.

The Birmingham War Memorial.

To the Editor of THE ARCHITECT.

SIR,—The problem set in this competition is complex, and involves much wider considerations than the section now competed for. The conditions state in vague terms that the monument itself is the first portion of a larger scheme, which will include at some future time a new City Hall to be built on land to the North and West. This land is far more than enough for such a hall, and indicates the probability of other civic buildings. However, the lack of an agreed scheme for the lay-out of the whole central area of the city made it impossible for the Corporation to give competitors the clear lead in this direction to which they were entitled.

Under these circumstances it is not surprising that most of the designs submitted seem to have been too greatly influenced by the present environment, and they are therefore of a size to withdraw attention from certain near-by architectural outrages—the Britannic Assurance building, for instance—overlooking the fact, or perhaps not believing, that while the Memorial is for all time, the buildings around are relatively of a temporary character. In fact, the need for a Memorial which will out-shout its present surroundings has been strongly advocated by a local architect of high reputation.

I submit that this point of view is wrong. Most of the buildings near the immediate site are to come down, and those which are not already scheduled for destruction will probably soon disappear. In any case, the future City Hall is the proper factor for association with the Memorial, and the latter should be suitably designed for a future relation of this character.

The problem therefore becomes one of finding a motive for the Memorial which shall leave the site sufficiently open to serve as a setting for the City Hall and other public buildings from any point of view; and a character of design which not only satisfies certain essentials of function, but which, by its difference from the usual elements of design in buildings of utility, will be enhanced in its own expression and give complementary value to the buildings which stand in relation to it. In other words, the Memorial should be distinguished by its subordination as to bulk, but be given prominence by means of an unique character.

The Assessor does not agree with this point of view. The winning design has a domed hall of considerable bulk (in which it resembles most of the designs submitted), and it is even more in opposition to the theory we have laid down, because placed on a podium 72 ft. square and 2 ft. 6 in. high.

Apart from this question of site treatment and relation to ultimate conditions, the Temple motive is a rather obvious arrangement, and one that will be difficult to treat in such a way as to justify yet another example of this much-used idea. Presumably the size of the structure does not leave a price per foot cube which will allow for the exceptional beauty of materials and workmanship that such a Memorial should have, but it seems very desirable that some of the details should be reconsidered, and among other things that the dome should have a decorative treatment comparable with that of the monument of Lysicrates or the original bronze tiling of The Pantheon at Rome. Perhaps the winners may think this comment justifiable, in which case let us hope that the Corporation will rise to the extra cost involved, since Birmingham is looking forward to the new Memorial as a point of departure for the highest grade of achievement in the future.—Yours, &c.,

A LOVER OF REASON.

Unification: Look Before You Leap.

To the Editor of THE ARCHITECT.

SIR,—In the vain hope of obtaining unification, a considerable section of the members of the Institute are anxious to take the momentous step of throwing open the doors of the Institute to "all architects of the United Kingdom"—without test or examination.

This all-embracing policy of "unification" has met with the approval of the Council, and in due course the matter will come up for confirmation at a general meeting, when it is to be hoped the dire and far-reaching consequences of this sweeping-in policy may be seriously weighed.

Though we write in all sympathy with registration, we are not prepared to support this particular step towards its realisation, unless it can be demonstrated that there is some reasonable prospect of ultimate success.

It is true that Mr. Simpson has told us at the Liverpool Congress that "with unity must come registration"; but, with all respect to Mr. Simpson, this statement does not carry with it a sense of conviction, and, moreover, it is directly opposed to what Sir Reginald Blomfield and Sir Aston Webb have told us.

From the broad and political point of view it must be recognised that the tendency of the country is to become more and more democratic, and as a consequence the chance of any particular section of the community obtaining statutory privileges or protection becomes more and more remote.

In the past it was not by way of protecting the lawyers, the doctors, and the dentists that they obtained statutory powers; these privileges were granted as a protection to the public. It will only be by architects demonstrating with overwhelming evidence that it is in the interest of the public that they also will have statutory powers granted to them.

We are almost ashamed to confess it, but we must admit the fact that we have heard a very great deal about the benefit to architects and, we are afraid, very little indeed about the benefit to the public, for, beyond the discounted statement of Mr. Simpson, there is nothing to encourage us to believe that the present movement of unification is likely to result in gaining statutory powers hereafter.

It is more than unfortunate, it is, indeed, misleading, to ask us to support unification now as a step towards registration in the future. In fact, we are to be asked to pay for the goods before delivery, and the price is the ruin of the Institute.

If the principle of unification is to be adopted and maintained (and it seems useless to adopt it unless it is maintained) in the vain hope that registration will result, then the doors of the Institute must be left open for all architects to enter, without test or examination, until that vain hope has been realised. Then, and not till then, can the doors be shut again.

The great majority of the corporate members of the Institute gained admittance at considerable personal sacrifice and by examination. Also, and it will not be forgotten, that a pledge was given that after a certain date the ranks of the Licentiates should be closed. Are these sacrifices and this pledge to be scrapped? We cannot imagine that the majority of the members of the Institute will support the unification movement without some guarantee that their sacrifices will not be made in vain.—Yours, &c.,

GEORGE HUBBARD,
A. W. S. CROSS.

112 Fenchurch Street,
London, E.C.
December 13, 1921.

Higher Buildings for London.

To the Editor of THE ARCHITECT.

SIR,—Statements have appeared in the London Press to the effect that the Royal Institute of British Architects has recommended that higher buildings should be permitted in London. There is no foundation for these statements.

The matter is under consideration, and the considered opinion of the Council of the Royal Institute will be published in due course.—Yours, etc.,

ARTHUR KEEN, Hon. Secretary, R.I.B.A.

Royal Institute of British Architects,
December 8, 1921.

The presentation of prizes gained by students of the Edinburgh College of Art took place on the 7th inst. Diplomas in architecture were presented as follows: Architecture—Stewart Sim, Frank Wood, A. G. Forgie, Thomas B. Gibson; Special Certificate in Architecture—J. Connel Pringle. The following scholarships and bursaries tenable during the current session were awarded: Architecture and Design Sections—Harry Slater. Architecture Section—The "Henry Jarvis Travelling Studentship" of £50 allocated by the Royal Institute of British Architects to ex-Service men—William Sutherland. Travelling Scholarships of £40—Stewart Sim, Frank Wood. Minor Travelling Bursaries—J. Connel Pringle, £10; W. Allan Muir, £10; John D. Coventry, £7 10s.; Edwin H. H. Williams, £7 10s.; John A. Arthur, £5; Archibald Craig, £5; James S. Johnston, £5; George L. H. Walls, £5.

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German Labour in the Somme.

The result of the inquiry opened by the French Minister of the Liberated Regions regarding the question of the employment of German labour for the reconstruction of twelve villages in the region of Chaulnes is reported as follows:—

Mr. Morain, Préfet de la Somme, found, after consultations with the four hundred families now returned to the villages they once occupied, that out of 303 families whose homes had been devastated 149 of these families, or 49 per cent., were of opinion that German labour could be employed, whilst 154 families, or 51 per cent., expressed a contrary opinion. These opinions were given after the Préfet had carefully put forward, according to the instructions given him by M. Loucheur, the advantages as well as the inconveniences of the employment of such labour, and had asked the head of each family to well consider the matter and freely express his point of view. It would appear that those opposed to the measure were chiefly in fear of the incidents which the presence of German workmen, having free circulation in the various sections instead of being kept in encampments, might give rise to.

However, the conditions fixed by the Ministre des Régions Libérées were not attained, M. Loucheur having declared that he could not consider the question of German labour unless at least 80 per cent. of those interested gave a formal opinion in favour of the introduction of such labour.

Competition News.

Members of the Society of Architects are requested not to take part in the Tottenham War Memorial competition without first ascertaining from the Society that the conditions have been approved by the Council.

The Kirkaldy Town Council invite designs for the local War Memorial at a cost of £4,000. The Assessor appointed is Mr. A. N. Paterson, President, the Institute of Scottish Architects. Premiums, £50, £30, £20 are offered. Conditions and plan of site may be obtained on application to the Town Clerk, Kircaldy.

The competition for the new Watford Hospital has just been decided, and Mr. W. A. Pite, F.R.I.B.A., the assessor, has made his selection. The successful architect is Mr. Wallace Marchment, Licentiate R.I.B.A. The drawings submitted by the twelve competitors will be exhibited in the Galleries of the Royal Institute of British Architects from December 29 to January 3 inclusive, from 10 a.m. to 5 p.m. (Saturday, 10 a.m. to 1 p.m.).

The "Architect" Fifty Years Ago.

December 16, 1871.

The Prince and the Londesborough Lodge.

In connection with the absorbing public topic of the hour—the illness of the Prince of Wales—a great deal has been said and written in reference to the sanitary condition of Londesborough Lodge, where His Royal Highness is, rightly or wrongly, supposed to have been infected. Certainly outside the circle of the Royal Family there is no man in England at this moment for whom we must be inclined to feel more sympathy than Lord Londesborough. No one blames him for neglect of sanitary precautions about his Scarborough residence. Our own view of the matter is that he has been a little too sensitive and zealous. Men in trying to do what is perfectly and exceptionally right often commit imprudences; and we are surprised that after so much has been written as to the careful examination and cleansing of the drainage and sewage in and about Londesborough Lodge, it did not occur to medical commissioners and newspaper correspondents that so near to the time of the Royal visit such an operation was the most dangerous which could have been attempted. If the normal sanitary condition of this residence is unwholesome, which really seems probable—for neither nobleman nor commoner, we imagine, is in the habit of having his drains, &c., cleaned when visitors are due—it would have been wiser to recognise the fact and leave the sources of dangerous effluvia alone for the moment. Never was the advice of the familiar saying, "Let sleeping dogs lie," more cogently illustrated.

L.C.C. Housing Scheme.

Particulars are this week available of the progress made in the various housing schemes for which the London County Council is responsible.

Building operations are proceeding on seven separate estates, the largest of which is Becontree, with an authorised total of 2,876 houses. The bulk of these—2,147 is the precise figure—are under construction and fifty-six are completed. The next largest estate is Bellingham, with a total of 2,056 houses, of which 1,762 are in progress and seventy-four completed. The largest total of completed houses is 389 on the Old Park Estate, out of an authorised total of 724.

On the whole colony of building estates the position on December 2 last was that of a grand total of 7,410 houses, 1,018 are completed and 5,132 under construction. Ten thousand three hundred men are employed on the work.

Forthcoming Events.

Friday, December 16.—Edinburgh Architectural Association. Meeting at the Royal College of Art, Lauriston Place. Lecture by Mr. Vernon Constable, A.R.I.B.A., entitled "French Gothic Architecture." 7.30 p.m.

Saturday, December 17.—International College of Chromatics. Meeting at Caxton Hall, Westminster. "Answers to Colour Questions," by Dr. Henri M. Leon, M.A., D.Sc., etc. 3.15 p.m.

Monday, December 19.—Royal Institute of British Architects. Meeting at 9 Conduit Street, W.1. Paper by Mr. Thomas E. Collcutt (Past President), entitled "A Plea for a Broader Conception of Architectural Education." 8 p.m.

Salford Town Council have approved a scheme for the erection of an electrical generating station on a site of about twenty-five acres at Agecroft. The first estimate of the cost of £1,189,000 has now been reduced by at least 30 per cent., and it is estimated the total cost of the station, with three generating sets installed, and including transmission cables to the Frederick Road station, would be £847,000. The Electricity Commissioners had approved the scheme.

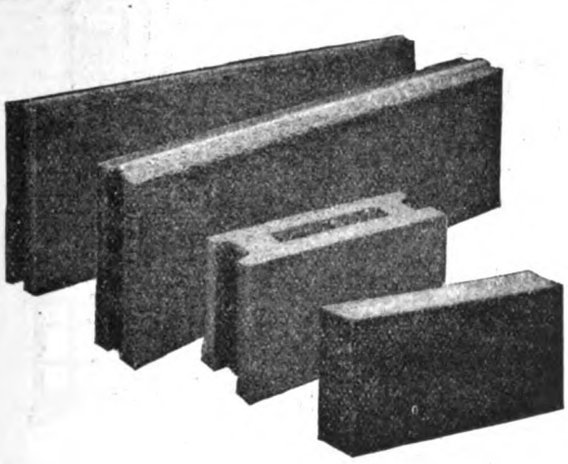
A company is in course of formation to carry out the erection of a cinema, roof gardens, and shops on the South Cliff at Scarborough, on the site at the corner of West Street and Ramshill Road. The property was purchased three years ago, with a view to development, and Mr. W. T. Whipp, architect, has prepared plans showing a cinema capable of holding 800 people, together with the other features mentioned. The plans have been approved by the Corporation. It is hoped to start building early in the new year.

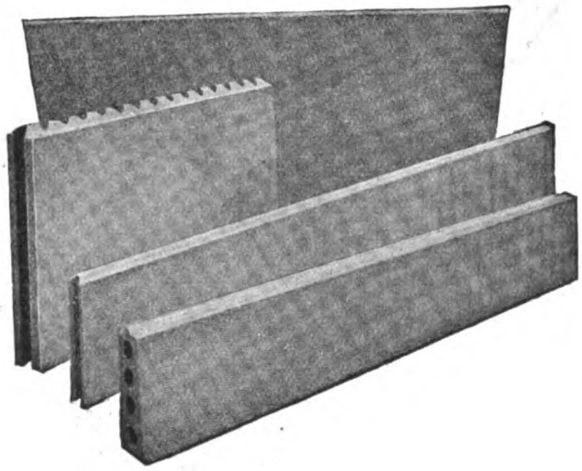
The expenditure during the half-year ended September 30 on the new London County Hall was £294,000. The Establishment Committee state that a further sum of £295,000 will be required during the remainder of the year. If this latter sum is expended, the provision in the capital vote for the year will be exceeded by about £140,000. This is due entirely to the rapid progress which has been made. The Committee recommend the Council to approve a supplemental estimate for this amount.

A rumour that the Ypres League has been collecting funds for the restoration of the Cloth Hall at Ypres is denied by Major H. E. Murat, secretary of the League. The only fund they are interested in, he says, is one to further their own prospective activities in the salient on behalf of their members and the thousands of widows and ex-soldiers who are likely to visit the district. The question whether the Cloth Hall be restored or be railed round and left in ruins as a memorial to generations to come of German barbarity is one for the Belgians alone to decide. "In Belgium," added Major Murat, "those advocating the rebuilding are headed by the burgomaster of Ypres and a small following of citizens who are entirely devoid of any sentiment. This party appears anxious to possess a town hall of magnificent design—a replica of the Old Cloth Hall—but supplied by British money. It is probably a sycophant of this party who is responsible for the false rumour that we are acting as their catspaws."

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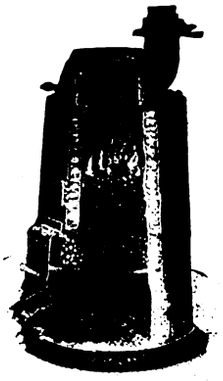
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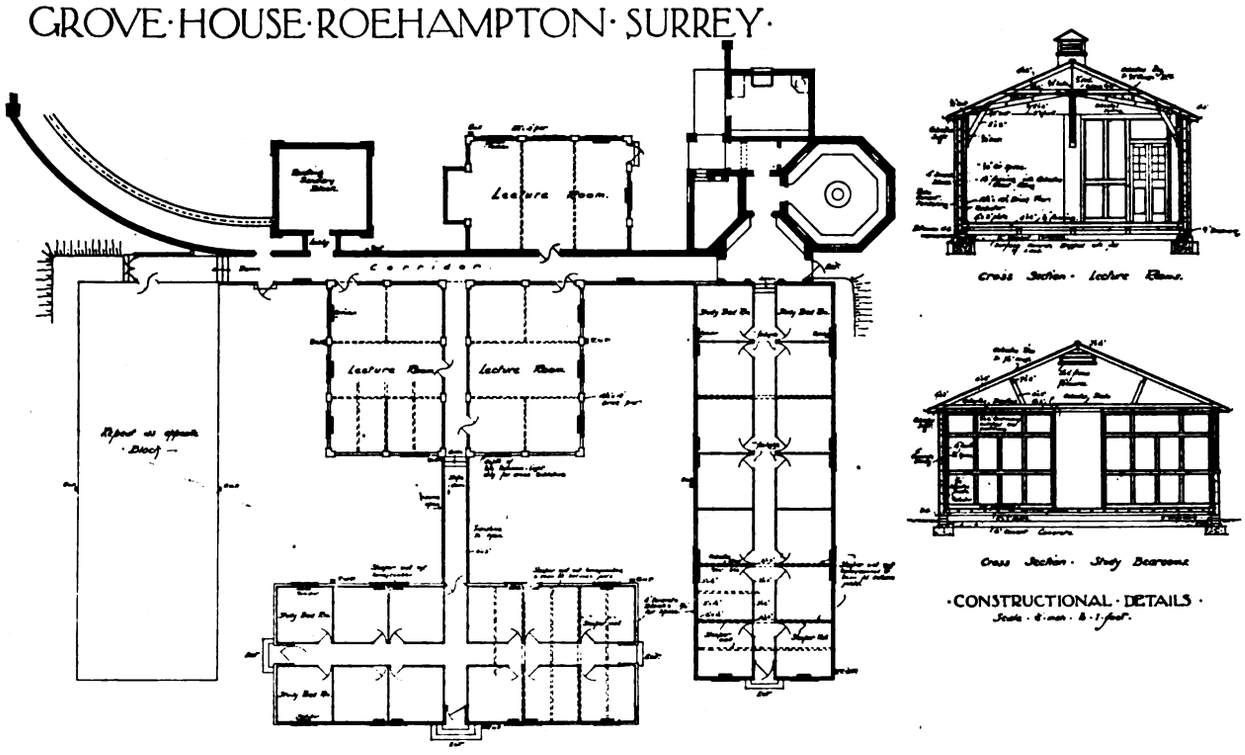
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Upper Grove House, Roehampton.



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The property consists of a mansion, very completely equipped, with laundry, bakery, dairy, &c., lodge, bungalow, bailiff's house, and numerous outbuildings, about thirty acres in all.

It is of historic interest, Robert Adam designed and built the original mansion on the site of an older one, and it still contains in the staircase and several rooms fine examples of his work, but throughout there are evidences of continuous alterations and extensions by various owners, so that the extent of the original house is almost impossible to trace.

The property was acquired in August last for conversion into a teachers' training centre and hostel for the Froebel Educational Institute. As no plans of any description were available it was necessary to prepare measured drawings of the whole of the extensive premises.

In addition to preparing a scheme for conversion, the architects were confronted with the problem of housing eighty students and staff by the beginning of October, two months from the date of receiving instructions, in addition to the accommodation eventually to be provided in the main building, which had to be ready in four months. It was decided to provide this immediate accommodation by erecting a semi-permanent block, linked up to the main building, consisting of three study bedroom blocks, three lecture-rooms, a sanitary block, and connecting corridors. To serve these buildings it was necessary to instal in the main building a domestic heating service capable of serving the whole scheme; to alter and reorganise the existing kitchen equipment, and instal a completely new gas cooking equipment capable of serving 200 persons, involving a new four-inch gas main and new meters; to instal a heating scheme, to arrange the whole of the electric lighting system with extensions to the new buildings, and to redecorate the large dining hall, and form service hatchways from the kitchen quarters.

In addition the plans had to receive the sanction of the London County Council and the sanitary authorities, a detailed estimate of the cost of the whole scheme had to be prepared and a contract entered into with the builders.

Owing to the extreme pressure of time and the extent of the work and the distances between the various sections, the architects fitted up a drawing office in the main building so that measuring and plotting, &c., went on simultaneously. Thus the whole of this preliminary work was completed, and the work in the mansion



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AUSTRALIA HOUSE.
A. Marshall Mackenzie & Son, FF.R.I.B.A.
Architects.

From an original Etching by
Christopher M. Shiner.

REDPATH BROWN & CO. Ltd.

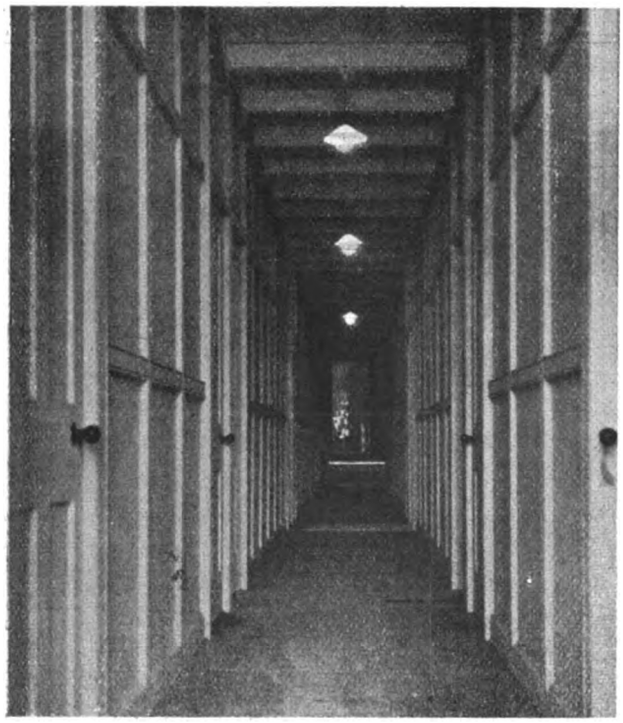
CONSTRUCTIONAL ENGINEERS,

3 LAURENCE POUNTNEY HILL, E.C.4

WORKS AND STOCKYARDS

LONDON	MANCHESTER	EDINBURGH	GLASGOW	BIRMINGHAM	NEWCASTLE-ON-TYNE
Riverside Works, East Greenwich, S.E.	Trafford Park.	St. Andrew Steel Works.	Westburn, Newton. Office: 19 Waterloo St	Office : 47 Temple Row.	Office : Milburn House.

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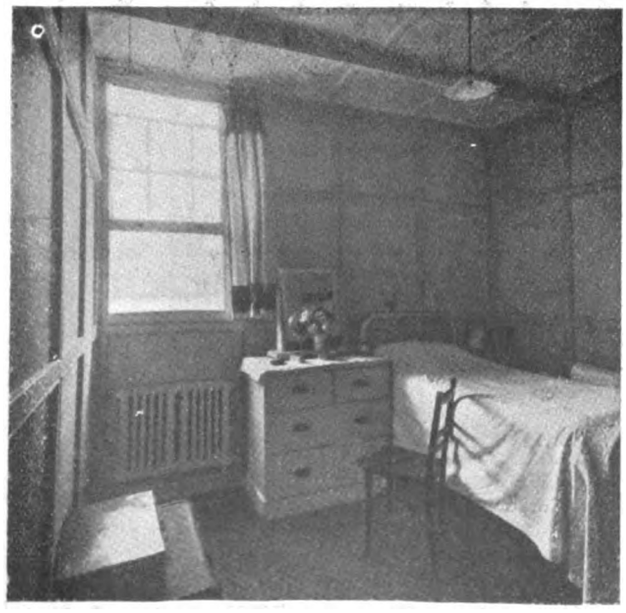


commenced on Sept. 14, leaving exactly three weeks in which to erect the study, bedroom, blocks, lecture-rooms and corridors, and sanitary block, with complete heating, lighting, telephones, hot and cold water supplies, cooking equipment and drains, etc.

Half the site was heavily timbered and had to be cleared. This was done by a gang of Canadian "Lumber Jacks," the timber being felled, cut, and carried within twenty-four hours.

By careful standardisation, in every part and above all by efficient organisation and team work on the part of the contractors and sub-contractors, and a willingness to work on the men's part both by day and night, combined with exceptionally favourable weather, the whole of the work was completed, and eighty students were in occupation of the study bedrooms in exactly three weeks from the day of starting, and the lecture-rooms were handed over a week later.

The methods adopted were interesting. Whilst the footings were going in, for instance, the heating engineers installed the boiler and motor accelerators and laid their runs up to the buildings, they then laid out on the ground the whole of the runs with connections complete, and immediately the brickwork was up plate high these pipes were dropped into position, joists were then



fixed and floor battens taken direct from lorries (which were timed to arrive to the precise hour), cut down and nailed at once, all notchings and perforations for vertical pipes to radiators were identical in position and distance in every case. Meanwhile the internal partitions, standardised in every particular, were prepared on the job and fixed as the work went up, thus avoiding all delay in cutting and fitting, so that by the time the roof was boarded and tiled the painters were finishing. The same methods were applied to the electric light and power installations.

Whilst the work was proceeding a large bungalow lodge in the grounds was altered and redecorated throughout, new gas services and hot-water scheme installed, and electric wiring. This was completed and in occupation by the staff on the same date. It should be noted that the large structural alteration schemes in the main building and extensive stable block were being carried out during the progress of the above work. The total expenditure involved is £25,000.

The architects are Messrs. Young & Macintosh, 1 Imperial Buildings, Croydon; the contractors, Messrs. Holloway Bros., London, special mention should be made of Mr. Fletcher, works manager, and Mr. Livingstone, general foreman; heating, hot water, and gas engineers, Messrs. Russell & Co., Lancashire Court, New Bond Street; electrical engineer, Mr. F. A. Laws, Purley, Surrey; gas mains, the Brentford Gas Co.; cooking plant, Messrs. Main & Co., Edmonton, London; sanitary goods, Messrs. Shanks & Co., New Bond Street, W.

General.

Messrs. Ingersoll Rand have been appointed sole agents in the British Isles for the famous Swedish "Sandviken" drill steel.

The forthcoming exhibition of present-day industrial art at the Victoria and Albert Museum, South Kensington, has been postponed until January 16.

The erection of a new club and institute is proposed at Carlton, near Barnsley. The architect is Mr. Chas. F. Moxon, Regent Street South, Barnsley.

Blackpool Council, for the purpose of extending the municipal offices, have bought for £75,000 a block of business premises which thirty-six years ago was offered them for £8,000.

The Glamorgan County Council have given notice of their intention to erect new schools at the following places: Llantwit Fardre (350 children), Peterston-super-Ely (150), Nelson (500), Pontrhydycyil (150), Maesmarchog (150), Caerphilly (400), Pontlliw (150). It is also proposed to make additions at Bryncethin school for 150 children.

Mr. W. G. Tarrant, of Byfleet, has decided not to come forward as an independent candidate for the Chertsey Division at the next election. His decision is conveyed in a letter, in the course of which he says: "I am indeed sorry to have to come to this conclusion, as the amount of support promised me has been very considerable. On the other hand, I can see that the opposition would be strong, and that a very big fight against the party machines would be inevitable. I am fond of a fight when I have the conviction that a fight is my duty. But if I had consented to stand in this case I fear I should oftentimes feel I was occupying time that should be devoted to my business in order to keep my people employed."

We understand that the Steel Window Association, which was formed for the purpose of popularising and cheapening steel casements in competition with wooden ones, has now been dissolved, the objects of the Association having been achieved. The conception of the standard steel window for cottages was one of the achievements of the Association, and has contributed in no small degree towards the cheapening of house construction. Standard steel cottage windows are manufactured by the individual firms, but not under the auspices of an association or combination of any kind. It is interesting to learn, in these days of trusts, that the operations of the Steel Window Association were carried on without price control, but solely in the interests of cheap production. Correspondence respecting the propaganda of the Association should no longer be addressed to 246 High Holborn, but to the individual firms.

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VOL. CVI.—2766. THE ARCHITECT DECEMBER 23, 1921.

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Smoke Abatement.

THE Committee appointed by the Minister of Health to consider the subject of Smoke and Noxious Vapours Abatement have submitted a full and comprehensive report dealing with the question historically and summarising the existing law on the subject, as well as comparing methods adopted abroad with those in force here. It would appear that, as far as the nuisance caused by industrial works, railways, &c., the existing powers, if enforced, are ample to effect the objects required, though where such regulations mention "black" smoke alone it is suggested that the limiting adjective should be eliminated, and powers thereby given to object to smoke of any colour. It is suggested that powers would be exercised with greater efficiency and uniformity by the Central Government rather than by the 1,800 sanitary authorities in whose hands the present administration of smoke laws rest, and in whose hands these laws are almost a dead letter. The Committee would hesitate to recommend such a change in existing circumstances, as this is an inopportune time in which to recommend the appointment of fresh Government inspectors. They think that improvements might be effected by placing powers of jurisdiction in the hands of local authorities acting for large areas, such as county and borough councils. This change would reduce the number of authorities from 1,800 to approximately 140. It is further advised that the Ministry of Health should appoint one or more competent officials to advise manufacturers or councils with regard to any exceptionally difficult problem.

It also recommends that the Central Housing Authority should decline to sanction any housing scheme submitted unless specific provision is made in the scheme for the adoption of smokeless methods of heating, and that the Government should encourage research into domestic heating generally. The extended use of different kinds of smokeless fuel will undoubtedly, as time goes on, render it possible to absolutely disallow the use of raw, soft coal, or other smoke-producing substances, for domestic purposes; but for the present the signatories of the report do not recommend the adoption of any drastic measures to eliminate the use of soft coal in existing domestic buildings, but undoubtedly if attention continues to be concentrated on the subject some such legislation is likely to become compulsory. The production of smokeless fuel which can be burnt in ordinary grates would be the most useful method of effecting this reform, while it might, and probably would, result in a lowering of the householder's annual coal bill. We do not for a moment believe that any method of central heating for the average small house is at all likely to come into general use for a large number of years, and it may never in the lifetime of the present generation be willingly adopted by a people who, as far as customs go, are the most conservative race in Europe. But it is obvious that in most manufacturing processes smoke production can, by the use of improved methods, be almost entirely eliminated, and that such elimination may, without hardship to the individual, be made compulsory. It is said in the report that steel manufacturers state that for the production of certain grades of steel a smoky atmosphere is essential in the furnace. This applies to evidence received from Sheffield, Middlesbrough, Coatbridge, and the Potteries, but the Committee state as to the latter that they observe that gas furnaces have been successfully used for the production of certain wares which it was previously stated could only be manufactured in a smoky atmosphere, and it seems probable that investigation will prove that the elimination of smoke should be almost universally feasible.

It would seem that in Germany and most other foreign countries little legislation has been introduced to obviate smoke nuisances, and that the greatly better conditions prevailing are due to voluntary action on the part of individuals and the use of more efficient apparatus for burning fuel. It seems probable that, as we have had for many years a cheaper and more abundant supply of coal than elsewhere, little attention has been paid to questions of the economical production of heat and the fullest utilisation of fuel—questions which are intimately bound up with smoke abatement; and it is more probable that the high price of coal at present will automatically lead to the correction of some of the evils we have suffered from in the past.

The report is full of interesting statistics, among them being the estimated waste of fuel in the form of soot, which is put down at an annual amount of £6,000,000; while the increased cost of washing in Manchester due to smoke is stated at £290,000 a year!

We have also a scientific statement of the cause of a London fog, which is described as follows:—

> The same witness informed us that the quantity of smoke required to produce a dense smoke fog over London is about 200 tons, and that considerably more than this amount is emitted by London chimneys between 6 a.m. and 10 a.m. every morning during the winter months. One of the causes of smoke fog is the inversion of the temperature gradient from the ground upwards. Ordinarily the temperature of the air falls as the distance from the ground increases, and the smoke under such conditions rises from warmer to colder air and escapes; but when the air near the ground is colder than the air overhead, as may happen in still, frosty weather, there is formed what is known as a "deck"; the hot air having risen from the lower strata presently reaches a layer of air at the same temperature as itself, which it cannot penetrate: the smoke therefore collects, and forms a dense smoke fog.

The report is, in the main, much like others which might be written about the varied evils of our life—evils which could readily be eliminated if people care to take sufficient trouble. If smoke induced smallpox we should no doubt have smokeless towns to-morrow, if it were only proved to the satisfaction of the average man that it shortened life we should

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have little to complain of in five years' time; as it is, we appoint committees, who tell us what most of us know, and by very small degrees improvement gradually comes. Up to date the most efficient factor influencing smoke abatement is the greatly increased cost of fuel and the financial necessity which forces most of us to use as little of it as we can. It follows that the collier during the last five years has been the most active agent in bringing about reform, though it may be questioned whether his action has been entirely governed by zeal for a public improvement. As the matter has been taken up by one of our great public Departments, we may at least congratulate ourselves that it is not likely to form as expensive an item as the Ministry of Health's housing policy, though its efficient prosecution may give us an "atmosphere" fit for the heroes whom we have not succeeded in housing.

Illustrations.

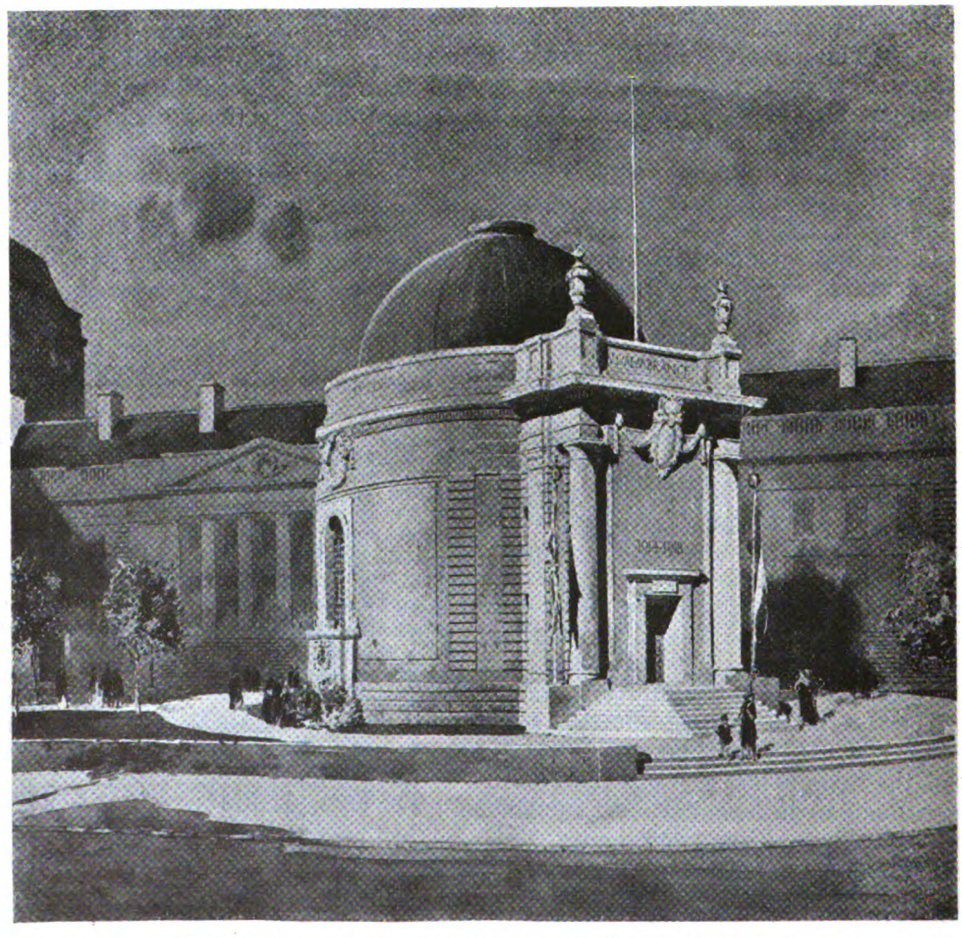
BIRMINGHAM HALL OF MEMORY.

DESIGN PLACED FIRST. COOKE AND TWIST, Architects.

DESIGN PLACED THIRD. UNDERHILL AND HOBBISS, Architects.

DESIGN by BUCKLAND AND HAYWOOD, Architects.

We illustrate the first and third designs in this competition and a selection of the others. In our view, the design submitted by Messrs. Buckland & Haywood should have secured the first place, while the alternative design submitted by Mr. G. Salway Nicol (No. 12), the lines of which suggest a monumental sarcophagus, and No. 11, by Mr. W. H. Bidlake, who has cleverly conveyed the idea of a monument by heightening the building which terminates with a stepped finish, stand almost alone in the competition as designs which are right in type. A dome is an unsatisfactory finish for a small building which is to convey a great idea, as it inevitably militates against a suggestion of height, and, though often pleasing, is never impressive when small in scale. For this reason the domed scheme submitted by Mr. Coulson Nicol (No. 13) is more architecturally impressive than any similar rendering in the room, since its external effect is given by diminishing stages of masonry, the internal dome being unmarked externally. This design is one of the most skilful examples of composition in the exhibition, and more nearly than any of the "hall" or "temple" types of design conveys a monumental expression. The advantages of a square termination are shown in Messrs. Butler, Crouch & Savage's design, which conveys an effect of scale impossible in a small domed building, but which suggests a compromise between the monumental type of Mr. Bidlake and that of the "hall or temple." The wording of conditions of competition is often unfortunate in conveying a false impression. In this case it would have been better to invite competitors to submit designs for a monument to those who fell in the War which should contain a small inner chamber for names or inscriptions—in other words, the "Hall of Memory" as a title is a misnomer.



BIRMINGHAM HALL OF MEMORY, No. 26. Design by JAMES H. SWAN.

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Notes and Comments.

The "Furniture Record."

A note in the "Furniture Record" states:—

I confess to some surprise at the commendation by my contemporary, THE ARCHITECT, of the Furniture Guild. Says that journal: "The movement is one that has our entire sympathy"—which is a view furniture manufacturers can hardly be expected to share. May I commend to THE ARCHITECT a study of articles which have appeared in the "Record" on the subject?

If the writer will send us the articles referred to we shall be pleased to consider them, but we do not know why the "Record" should feel surprised at our commendation of the Guild. That body proposes to make, mend, and sell furniture under a co-operative workers' scheme, and, as far as we have heard, does not indulge in political agitation. We should be glad to see the makers in every trade and calling trying the experiment of running things for themselves. If they can produce goods which are needed more cheaply than is done by the ordinary employer the community will benefit and the enterprise succeed. If not the workers will probably conclude that the employer is not as black as he is painted, and the recognition of this fact will conduce to industrial rest. This is why we welcome what seems to us to be a reasonable experiment. On the other hand, when, as in the case of the Building Guilds, a body indulges in political action, and shows a tendency to wish to interfere with the rights of others, its action seems to us to be mischievous.

A Memorial to Members of the R.I.B.A. Staff.

Mr. Woodward writes as follows to the "R.I.B.A. Journal":—

I suppose that, with the probable exception of Mr. John Slater, I remember as much about the old staff of the R.I.B.A. as any member of the Institute, and I have not forgotten to mention their worth when making my customary addresses on the Annual Report.

I have read with much pleasure the well-deserved eulogiums passed upon Mr. Tayler and upon Mr. Northover in the "Journal" of September 24, October 22, and the 12th inst., and I believe that I shall have the members of the Institute with me in the suggestion I now make that we offer our two old friends some permanent testimonial to mark the esteem in which we hold them.

I now venture to ask the members of the Institute to contribute to such testimonials, and suggest that the subscription to each shall not exceed 10s. from each member. The nature of the testimonials can be determined when the sum is ascertained. It would facilitate the matter if the Chairman of each of the Standing Committees would bring the subject before his Committee, and this suggestion might apply to the President of each of the Allied Societies.

I shall be pleased to become the treasurer of the fund, and to receive the subscriptions, which will be duly acknowledged; and I propose that the list shall be closed on Saturday, January 21, 1922.

We agree with Mr. Woodward that such a testimonial would form a fitting recognition on the part of the members of the R.I.B.A. to two of the most valued members of the staff, who individually have each done long and untiring service to the R.I.B.A., and have made friends of its members by their unvarying courtesy and personal kindness.

The City Churches.

The volume of letters on this perennially interesting subject grows, but the real facts can hardly be said to have been touched. Admitting as we freely do that the number of the churches scheduled for whole or partial demolition was unduly large, and that many churches which are not required for ecclesiastical reasons should be retained for architectural ones, the fact remains that some of the churches scheduled are not worth retaining for any reason whatsoever, and that among these churches is All Hallows, Lombard Street, for the site of which half a million has been offered. We will undertake to say that if fifty educated men with some knowledge of architecture visited the church and then expressed their opinion, that possibly one or two of them at the outside might object to demolition. A good deal of opposition is easily manufactured because people are for the most part entirely ignorant of the subject-matter under discussion. They are told that Wren is a great architect; a church is attributed to Wren, and without seeing it they conclude that it must be a fine building. Moreover, it costs them nothing to object to proposals which would bring revenues to the Church. They are, in a word, both ignorant, misinformed, and speak without responsibility. Mr. Keene knows the churches, but his letter is that of one who would resist all change, whereas we believe that reason and compromise on such a question are far greater aids in safeguarding what should be retained than absolute opposition to change, which in the end usually brings about more drastic measures.

"The Designers of Our Buildings."

Under the above title a little book has been written by Mr. L. Cope Cornford, who has dedicated it to Mr. J. W. Simpson. It is sent us from the R.I.B.A., from whose offices copies can be obtained for 5s. It is very attractively illustrated by a fine series of reproductions of the portraits of some of the past-Presidents of the Institute, and Mr. Locke has written a sympathetically worded Foreword, in which he emphasises the great relative notice taken of the producers of other forms of art and literature as compared with architects. We are a little puzzled to know to whom the book is intended to appeal—if to the outside public it is too exclusively concerned with the Institute as representing the profession, and if to members of the Institute it tells them what they already know—or would assume—for the history of the Institute is the history of every society which, starting from small beginnings, gradually assumes more extended functions and is given wider jurisdiction, but it may well be that the book will have an extended appeal in spite of the points we have mentioned. We know that the whole question of what is termed the public appreciation of architecture is much under discussion at the present time, and that much propaganda work is being set on foot in various directions, but the greatest of all work that can be done is to impress architects as a whole with the essential fact that the greatest thing they can do to increase their own weight with the public is to prove to their clients that they can "deliver the goods" wanted, and can do this in a businesslike way without frills and friction.

Smoke Nuisance in London.

The question of securing the abatement of smoke nuisance in London has recently engaged the serious attention of the Public Control Committee of the London County Council. Of all possible offenders the layman might well be forgiven for supposing that the London Borough Councils would be the last to create a nuisance in this direction, especially since they are the sanitary authorities for their own districts. Yet the Council was recommended this week to sanction proceedings against the Hammersmith and Islington Borough Councils in respect of the emission of smoke from their electricity generating stations. Remarking on this recommendation, Mr. Andrew T. Taylor said that 76,000 tons of soot are emitted every year in the City of London. Virtually this was all carbon fuel, which was wasted in the atmosphere, and was an infinite danger to public health. With proper plant it might be used, and was in fact used by all the big companies who practised economy. Nor was this the only disadvantage. The smoke was cutting into the stonework of buildings and ruining the architecture of London. Mr. Hume pointed out that it would be extremely unfortunate for legal proceedings of this character to be sanctioned as between two public bodies, since in any case the ratepayers must bear the whole of the legal costs. He suggested that the Council should defer taking definite action until the first meeting after the Christmas recess. The Council decided to adopt Mr. Hume's suggestion.

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Mantua.

Her Story in Art and Architecture.

By Selwyn Brinton, M.A.

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I.—The Mediæval City.



MANTUA: PIAZZA SORDELLO, SHOWING THE BONACOLSI PALACE.

The early history of Mantua is wrapped in the mist of legend, from which her own chroniclers do not do much towards finding any clear issue. In fact, such writers as Stefano Gionta in his Chronicle, or the Humanist, Mario Equicola, whose "Istoria di Mantova," published in Mantua in the year 1510, I was lucky enough to acquire within the old city herself in 1905, seem rather to enjoy these beautiful mists of legend, as they afford the material for a display of their own learning or ingenuity of reasoning.

Gionta, for instance, in his "Fioretto" takes us back as far as Manto, daughter of Tiresias, who, leaving Thebes for Italy, had founded, with the natives' assistance, the city named after her; Equicola brings us to the "Aeneid," and the Tuscan Ocnus, son of this priestess Manto and a river-god, to whom Aeneas had applied for help when hard pressed by Turnus and the Rutuli. But here the old Chronicler comes into collision with Dante, who in his great poem speaks of the lady as "la vergine cruda." "Dante," he exclaims, "calls Manto a virgin-Virgil a mother"; and in his difficulty our Humanist begins to question whether she "was ever a real woman at all."

When, however, we get to Virgil's time we are on much surer ground; and those of my readers who are classic scholars will remember the lines in the first Eclogue in which the Mantuan poet compares the impression of the grandeur of Rome

> Urbem quam dicunt Romam, Meliboee, putavi
> Stultus ego huic nostrae similem" . . .

with the provincial character and extent of his own city. The same readers will remember also that at this time certain Mantuan lands had been appropriated for the veterans of Octavius and Antony, but that Virgil, who had been one of the sufferers, was so fortunate as to recover his own through the intercession with Octavius of his friend Pollio, Prefect of Transpadane Gaul, to whom he had sent the eighth Eclogue. All through Mantuan history the city remembered with affectionate pride the great Augustan poet to whom she had given birth, and in the mediæval city his figure, roughly carved, was placed upon the Palazzo del Podestá. In the days of Isabella d'Este there was some idea of replacing this by some worthier monument to the Mantuan poet, though this project never materialised; but in these days of Renaissance culture the famous scholar Vittorino da Feltre had acquired for himself the house at Pietole, which tradition had handed down as Virgil's birthplace, and in the nineteenth century the little Commune of Pietole changed its name to that of Villa Virgiliana, and erected to the poet a statue, the work of Paganini, a Mantuan sculptor.

When in the last days of Roman power the Goths swept down upon Italy they seized Mantua as a point of vantage,—which, in fact, it has always been in the troubled story of Italian invasion,—and Goito, a strong place on the Mincio, probably derives its name from them; later came the Vandals who sacked the unhappy city, as they had dealt with Rome herself, and yet again, in A.D. 580, was Mantua besieged and captured by the ferocious Longobardi.

During the period we have just glanced at the impression given by the old chroniclers of Mantua, such as Gionta or Agnelli, is one of confused and continual fighting between Goths, Vandals, Huns, Greeks of the Eastern Empire, Longobardi, and Ostrogoths, in which Mantua is generally regarded, seated among her lakes, as a convenient base for hostilities.

The last tide of invasion, that of the Huns, when Pavia was set in flames, was perhaps the worst; but out of all this confusion and misery the free Italian Communes were slowly shaping themselves into splendid independent growth, beneath the shadow of the Holy Roman Empire and the Papacy; and in A.D. 984 Mantua was given by the Emperor Otho II. as an Imperial fief to the Counts of Canossa.

This may be a convenient point to mention a legend of the city, of which Gionta treats at length in his Chronicle; it will be found to have a special interest in connection with, and as a motive centuries later for, one of the noblest creations of Renaissance architecture. The old story was that Longinus, the centurion who with his lance had pierced the Saviour's side, had collected in a

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jar the blood which was flowing thence; and "later, when he had completed his military service, was baptised, and went forth to preach the faith of Christ, until at length he reached Mantua, where he came to lodge in an alms-house, on that spot where now is to be seen the church of S. Andrea. And because the land was full of pagans he buried in the orchard of the alms-house that vessel wherein was the Precious Blood, and then went forth to preach."

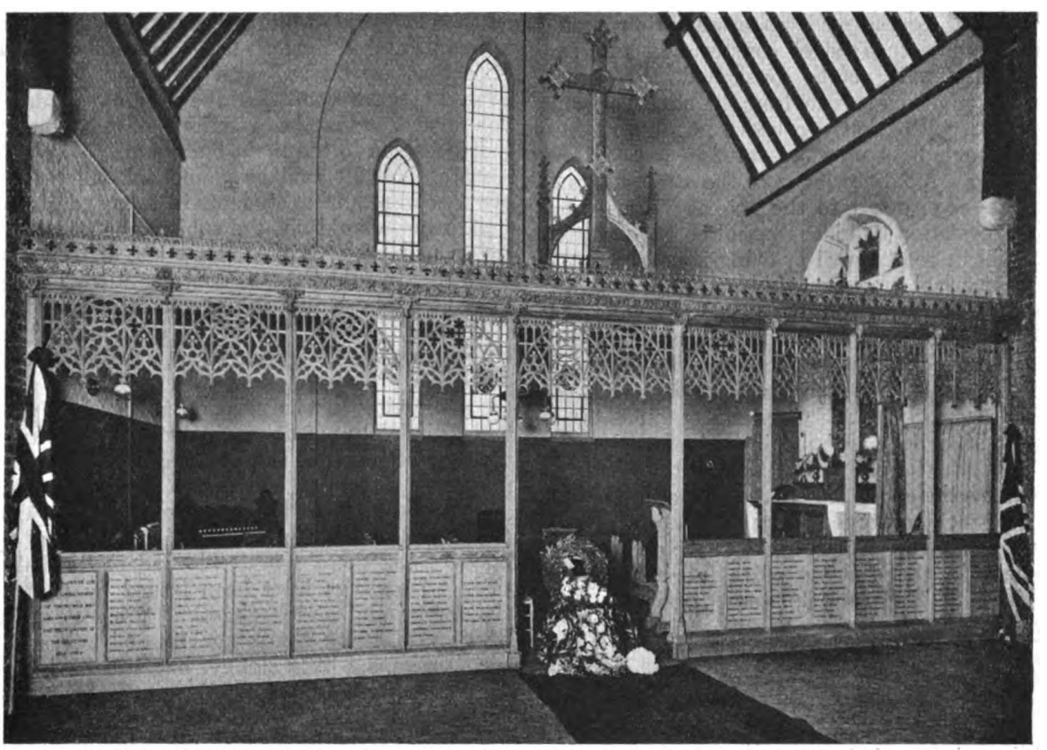
There follows the story of his martyrdom by the Roman Governor; but what is of importance to us here that we find again and again in Mantuan story this Miracle of the Most Precious Blood repeating itself. To enshrine this priceless relic of the "Preziossimo Sangue" in the great days of Mantua under the Gonzaghi their architect, Leo Battista Alberti, designed the marvellous Renaissance Church, within whose shadowy crypt, the shrine of the mysterious relic, at every dawn mass is held. We have seen that Mantua had been given in fief to Tebaldo, Count of Canossa; he had been followed by his son Bonifazio, and now Bonifazio had himself died, and his widow Beatrice was living in Mantua, when in a dream or vision the Precious Blood was discovered, and placed in the church of S. Andrea, which Beatrice had with its monastery then founded.

At the very moment of history when the titanic struggle between Pope and Emperor assumed its most dramatic form, Beatrice had been succeeded as ruler of Mantua by her daughter, the famous Countess Matilda. Her charter to the city of Mantua lies before me, and is a most generous one: "Guelf, by the grace of God, Duke and Marquis, Matilda, if somewhat she be, is so by the grace of God"; and with this preamble she confirms to Mantua her privileges, exemptions, and holdings on the Mincio and Uglio. In spite of this she could not hold the city, which was besieged and taken by the Emperor Henry III., and later, says the Chronicler, "reduced to a state of freedom," declining obstinately to return to the Guelph fold, till it was recovered at the very close of her career by Matilda.

The fact seems to emerge that the Mantuans played their hand extremely well at this time; as they had played off Matilda against the Emperor so later they were to play off Barbarossa against the Republics. Mantua is now emerging as a powerful independent Commune, and her early architectural features, which I shall treat in the succeeding notice, the Bridge of the Mills, the Palace of the Podesta, and Torre del Commune date from this time; the Bonacolsi Palace, which I illustrate, was probably completed a little later.

(To be continued.)

St. James's, Forest Gate.



WAR MEMORIAL SCREEN, ST. JAMES'S, FOREST GATE. Mr. LEONARD C. WEBB, Lic.R.I.B.A., Architect.

On Sunday, November 13, which in many parishes was regarded as Armistice Sunday, a war memorial screen and chapel in this church were unveiled by General Sir Francis Lloyd, G.C.V.O., K.C.B., D.S.O., and then dedicated by the Bishop of Chelmsford. A portion of the north transept has been transformed into a morning chapel, and furnished by Messrs. Jones & Willis. A carved oaken screen has been erected to divide the chapel from the nave of the church. This parish sent over 700 men to the war, and 151 made the supreme sacrifice. On the panels of the screen are inscribed their names. The service was of a most impressive character, and several hundred relatives of the fallen men were present.

The execution of this work together with the remainder of the furniture of the chapel was entrusted to Mr. R. Chapman, of Hanworth, Norfolk, from the designs and under the superintendence of Mr. Leonard C. Webb, Lic.R.I.B.A., of Messrs. J. T. Newman & Jacques, architects.

The Chapman family have been builders and wood carvers at Hanworth for 300 years, and many Norfolk and Suffolk churches have been restored by them.

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Royal Institute of British Architects.

An ordinary general meeting of the Royal Institute of British Architects was held on Monday last, the 19th inst., Mr. E. Guy Dawber, F.S.A., Vice-President, occupied the chair.

The Hon. Secretary announced the death of Mr. G. C. Ashlin, past-President of the Royal Institute of the Architects of Ireland; also the death of Mr. E. G. Fletcher and Mr. W. Stainer, Licentiates.

Mr. Thomas E. Collcutt (Royal Gold Medallist 1902 and past-President 1906-8) then read a paper, of which we here give a synopsis, entitled:

A Plea for a Broader Conception of Architectural Education.

Architects have suffered and are still suffering, perhaps more than any other body of men, from the effects of war. The outlook is still gloomy. But, in spite of this indubitable fact, students and yet more students are encouraged to enter the schools. Mr. A. J. Davis, in a recent lecture, pointed out that in the Ecole des Beaux-Arts the percentage of applicants ultimately admitted is 10 per cent.; those who do not pass have to enter some other calling. But a large proportion in our own schools are allowed to take the full course before finding architecture is not their bent. This is unfair to the student, it wastes years of his time, and is a handicap on his future—the schools have done him a wrong and are incurring a grave responsibility.

Mr. Collcutt suggested that no student should be finally accepted unless he can show, on a short probation, that he has a peculiar native aptitude or tendency to architecture above any other calling. This "aptitude" should be ascertained by a body of examiners independent of the schools. Of course such an examination should be confined to architecture; steel construction and perspective colouring should not be considered.

If this world could be revisited by the shade of some Ninevite architect, with what perplexity he would regard the portentous curriculum now presented in some of our schools! Having a full knowledge of the attainments of the old masters—say, down to the age of Wren—what an astounding revelation to him it would be to learn that an exquisite skill in geometrical drawing is considered as almost an indispensable means to an end!

Principals of schools are, apparently, not aware that almost all architects are wise enough to seek the advice of experts in steel construction, and in many cases in sanitary and electrical work—always, of course, with the concurrence of their clients. Only the rudiments of these trades ought to be considered in the schools.

Mr. Collcutt said he had to confess that he had not been in touch with the education offered at the Association during the past eight or nine years; before that period he took pupils with the proviso that two years should have been spent in the drawing office (now an atelier) at the Association. These pupils were among the very best he ever had. In those days he felt great confidence in the Association, but he had since been painfully disillusioned as to its merits in the present day.

The very last assistant to come to him emanated with credit from one of the schools, but he possessed no practical knowledge of the work he was required to do in the office, and had to be dismissed summarily with his confounded theories.

Another man passing from a school, and coming to the lecturer, could not calculate the dimensions for a steel floor girder carrying a distributed weight, although a few weeks before he had become an Associate. He was quite an excellent assistant, and was thought none the less of for his inability to make that calculation. Mr. Collcutt said he could not have done it himself.

One must view with grave apprehensions a lecture on the theory of architectural education delivered in Liverpool and published in the August "Journal" of the R.I.B.A. The system of education advocated appears to be in vogue in many schools as well as in Liverpool. Throughout the whole curriculum architecture, as a fine art seems to be almost a secondary consideration. Yet in spite of all the appalling range of studies set before the student, one can extract some amusement from the conclusions to which our lecturer arrives. For instance, there must be three grades in the practice of architecture: (1) the local practitioner, (2) the constructional expert, (3) the designer. To these add the arbitrator and the perspective colourist.

The Liverpool lecturer advocated five years of study in all.

A summary of studies suggested for the first three years embraces: Studio work, construction design, measured studies, history, archæology, theory of planning and design, applied geology, physics and mechanics, construction, materials, surveying, sanitation and hygiene, descriptive geometry, sciagraphy and perspective, and presentative technique and rendering. "Presentative technique and rendering" is good. There is a lot more to learn, including law, finance, &c., &c., but pray do not be alarmed, "he only wants to make your flesh creep."

This lecturer admits that two periods of six months during the last five years should be spent in an architect's office!—and there you are—fully equipped to suck the blood of the first client caught in a web of theories and coloured perspectives.

On looking through some Liverpool prospectuses it is pleasant to find extremely good designs done by students who, having probably wisely ignored the greater part of the school curriculum, should, presumably, be classed as expert designers.

All these productions are for important public buildings, and are designed in what one may call a columnar style, having its birth in a great measure in the temples of the old world, while the general effect is imposing and pleasant, and in modern times quite appropriate in countries that are blessed with a brilliant atmosphere. But even in these countries the use of columns, forming colonnades, must be a serious obstruction to the light indispensable to the main building.

Mr. Collcutt said he would ask whether the schools are wise in requiring students to submit designs of palatial buildings—should not the subjects be mostly of a domestic or business or a civic character, and on possible sites, sites they would have to consider in real practice? Important public buildings are not of everyday occurrence. Certainly not with the grand and terraced open spaces shown in their designs, adding a fictitious value to their designs.

A drawing that is pleasing to the eye, well coloured, and artistically put down, gives to the untrained observer the impression that the architecture must necessarily be good.

Works such as these are object-lessons in how not to do it, but the Architectural Association seems to be encouraging these regrettable and really dishonest practices. Drawings have been issued by that body where the foreground and background are the especial points of interest, being charming bits of black and white, the trees perhaps a little sloppy, but still having a good deal of artistic merit from a landscape painter's point of view. The architecture, which ought to be the centre of interest, is sometimes good, often indifferent, not seldom very bad. Camouflage is a word overused, but here it fits the case.

In the Architectural Association curriculum there is a "third-year" student's design for a gamekeeper's cottage with a perspective view. In the foreground of the perspective is a pool or "head" of water apparently flowing under an arch and under the cottage. On looking at the plan, however, one finds that the pool is a stagnant one, stopped by a deeper wall of the cottage, this arrangement being contrary to all building by-laws and to the laws of hygiene. The picture is charmingly drawn and is a good bit of penwork, but the design for the cottage is really entirely commonplace and thoroughly suburban, and is, too, without evidence of any study of architecture.

There are hundreds of gamekeepers' cottages scattered about the country, homely and picturesque in

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harmony with their surroundings, and suitable for their purpose. Many of those, for instance, in the Cotswolds might be studied for their architecture—but evidently have not been.

In the very title on the Association prospectus the word "Architectural" has two distinct f's in place of two t's, and ends with a capital L. "Things are not what they seem."

Gilbert Murray, speaking of Greece, says:

"Her great experiences were undertaken with the knowledge that success depended on the education of her citizens not only in efficiency, but also in restraint and generosity and a high conception of the dignity and possibilities of human life ennobled and advanced by beauty, wit (i.e., wisdom), intelligence, and, above all, by liberty."

With the help of teachers and lecturers a way may be found by which students can train themselves in the education thus suggested. They should aim at getting a good knowledge of sculpture and painting, and, under direction, should enter upon a course of reading, choosing the best literature, both prose and poetry. In one branch of study no teacher is required—namely, in training the faculty of observation, that is, in retaining a correct mental vision of some particular object. These studies can be followed during and, of course, after, the preliminary work of the schools.

By intelligent observation, first observing and then drawing from memory, students may learn and absorb more than by merely drawing from the object: for the latter may be done almost automatically. The two methods should be studied side by side, together with the important work of measuring and plotting old examples of architecture.

Mr. Collcutt then proceeded to describe the impressions he received on his first visit to the Acropolis—a golden opportunity for cultivating the faculty of observation. It was, he said, impossible to visualise the Parthenon from books, nor could it be expressed by the cleverest perspective drawing. It is only by actually seeing the building that you can truly value the entasis, and that you can realise the refined outline of the mouldings, which show no commonplace bow-pencil rigidity of outline. Everywhere the light and shade have been perfectly considered; this is especially apparent in the fluting, and the strength that this seems to give to the columns. One is impressed by the exact proportion of all parts to the whole. In the Parthenon—in its perfection of design, colour, and workmanship—is beheld in visible form the glory that was Greece.

In studying old buildings, the student should keep an open mind and not be led away by a style that may be fashionable for the time being. Nor take it for granted that Inigo Jones was the father of English architecture, though he certainly must be considered the father of Italian architecture as practised in England. The present generation are heirs of the men who built our cathedrals and our manor houses.

All the old masters were not infallible. Go to Vicenza and look critically at Palladio's buildings: with the exception of the "Basilica," and perhaps one other building, his work is not altogether beautiful. It would almost seem "he had most carefully divested himself of all esthetic sense." Go to Oxford and examine the early work of Wren; Wren was not always successful.

During the last three or four decades there has been a revival of Italian architecture in America, as well as in England. We have picked up threads from Italian masters, before and after Palladio, and threads from our own masters. We have woven these threads, without due consideration whether they had the quality of beauty or not, into patterns or samples expressing some of the evil and some of the good pertaining the old masters. Would that some master-mind would arise and teach us how to capture Greek thought as it first influenced Rome, pointing out where the Romans just missed the beautiful, and thus guided, we might in time achieve in our buildings something of fine art.

Young men may indulge in visions of a style born of tradition and adaptable to the new conditions. But their visions, said Mr. Collcutt, must be exalted: they must not be confined to the mere work they are engaged upon. "Weary of the past," we are hoping for a loftier, brighter and simpler age, bringing with it what Wordsworth prayed for: "plain living, high thinking, and homely beauty."

Discussion.

Mr. John Slater, in proposing a vote of thanks, remarked that he did not find himself able to agree with a great deal of what Mr. Collcutt had said. Mr. Collcutt was a veritable St. George out for dragons, and had come back to attack them with all the vigour of youth. However, an institution that could not stand criticism was not worth anything. But it was not fair to blame a school or system for individual failures, as the lecturer had seemed to do. Professor Reilly's withers would not be very strongly wrung by the lecture. The suggested examination in architecture of the student after a short probation by independent examiners seemed a feeble thing: for how could a man be examined in something he knew nothing about? What ought to be done would be a very careful consideration by the professor and teachers of the work of a student after his first six or nine months, and a subsequent decision as to whether it was a mistaken choice for a career. There existed undoubtedly some danger arising out of the rivalry of the various schools that there might be a little relaxation of the weeding-out process. Mr. Collcutt had made the point that there were too many subjects taught. But past-presidents had almost without exception told students, in their annual addresses, that architecture was not sufficient, and that it was necessary to learn this, that and the other. The lecturer had done so himself fourteen years ago. No one could object to Mr. Collcutt changing his mind in the interval; but he might have brought forward more potent reasons for doing so. It was well to look at the effects of systematised education in those countries where it had been carried on for some time. There could be no doubt that the excellence of the seventeenth-century work in France was due to the training of the architects. America to-day had a far wiser and more comprehensive system than this country. Have the results been bad? The recent exhibition of American work proved otherwise. Architectural schools do not pretend to turn out at the end of five years a sort of super-architect, competent to start in practice for himself. Mr. Collcutt had been destructive in his criticism, but not constructive. Would he go back to the old happy-go-lucky days of the 'seventies? The lecturer could be recommended to pay a visit to one of the active architectural schools: he would certainly remain to bless the work being done.

Letters were then read from Sir Reginald Blomfield, Mr. Paul Waterhouse, and Mr. Ernest Newton.

Sir Aston Webb recalled the days when he and Mr. Collcutt sent in rival competitive designs for the Wakefield Town Hall. They all thought Mr. Collcutt's successful design a great achievement. He (Sir Aston) felt quite in agreement about the alarmingly large number of students now entering the profession. It was a very serious thing in view of the unfavourable outlook. It was only leading young men to disappointment to educate them in a calling for which they possessed no aptitude Mr. Collcutt seemed to think that for students to begin on designing large buildings was to begin at the wrong end. Personally, he believed the big end was the right end. He entirely agreed with what had been said about the necessity for observation. It was possible to measure a building on the spot so mechanically as never to think of it as a whole or to find out the difficulties surmounted by the architect. He had recently been having to go every week to St. Paul's, and was convinced that nothing would teach a student the extraordinary genius of Wren better than a close examination of that building.

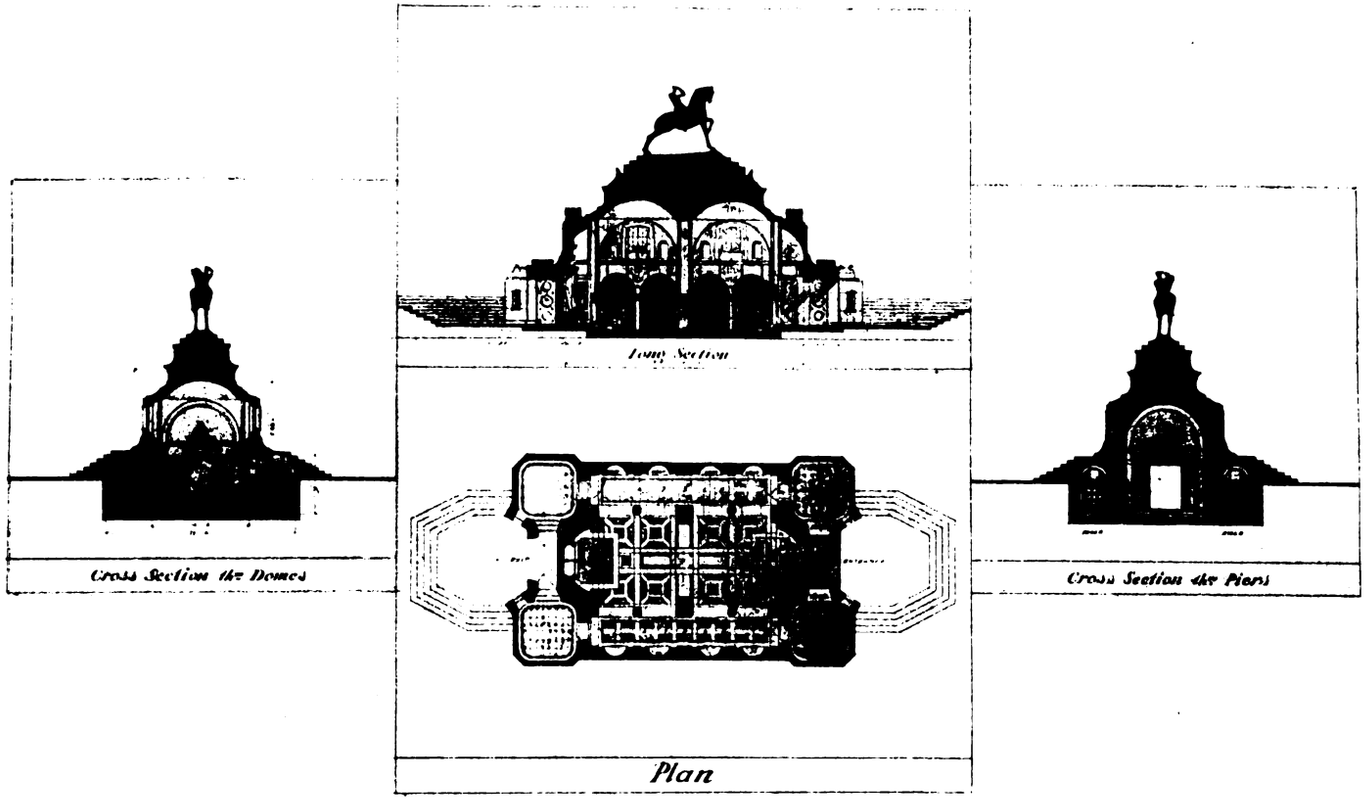
(*Continued on p.* 380.)

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BIRMINGHAM HALL OF MEMORY, No. 9. Design by Butler, Crouch & Savage.

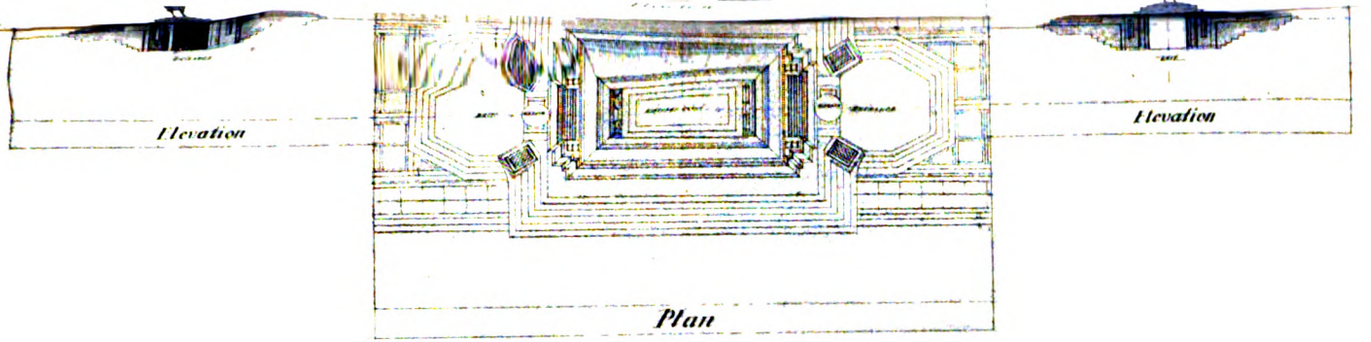
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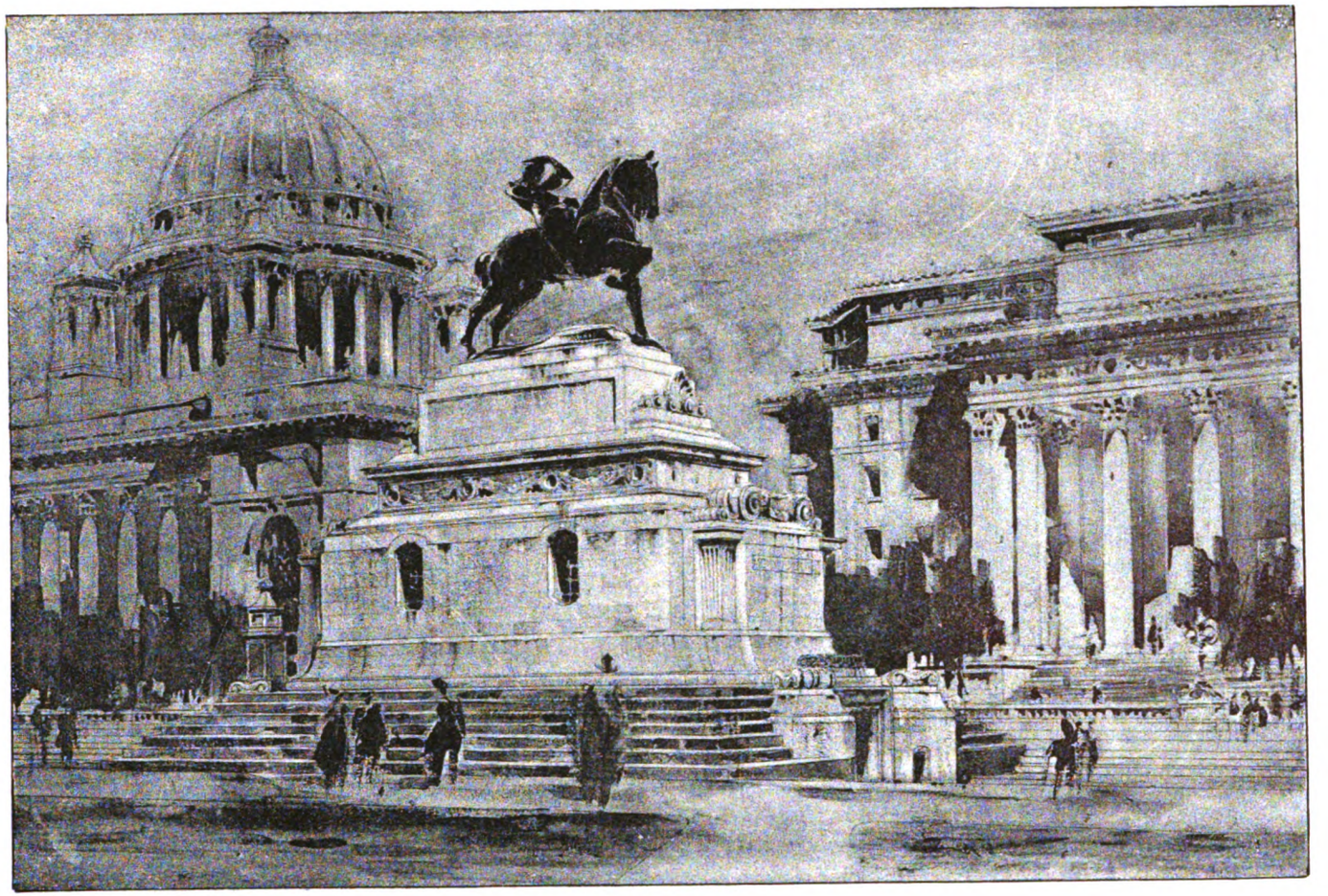
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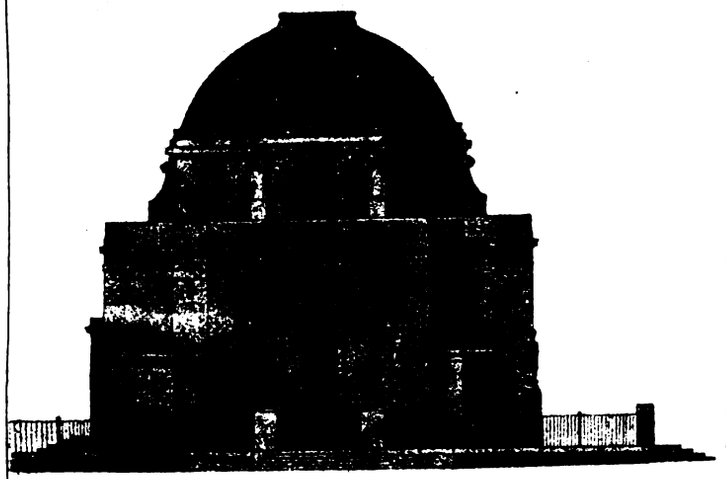
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DESIGN BY BUCKLAND & HAYWOOD, ARCHITECTS.

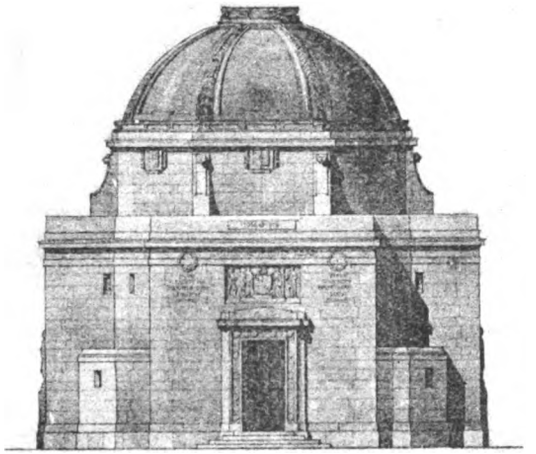
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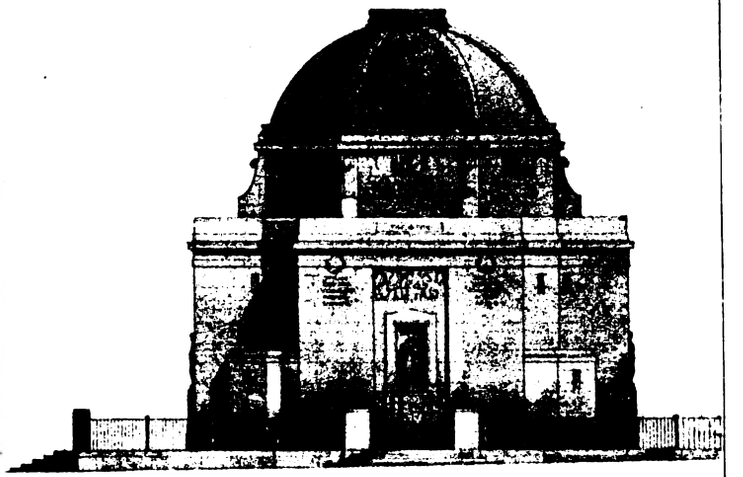
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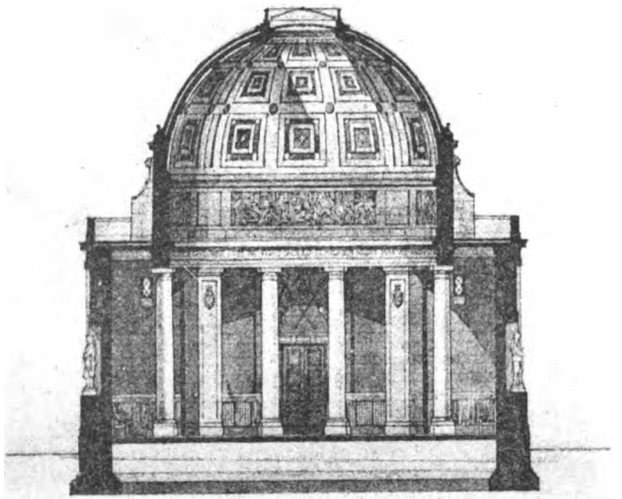
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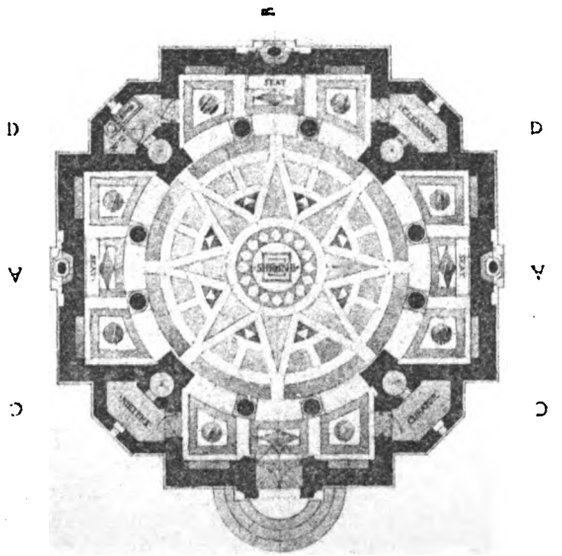
ELEVATION TO AVENUE.



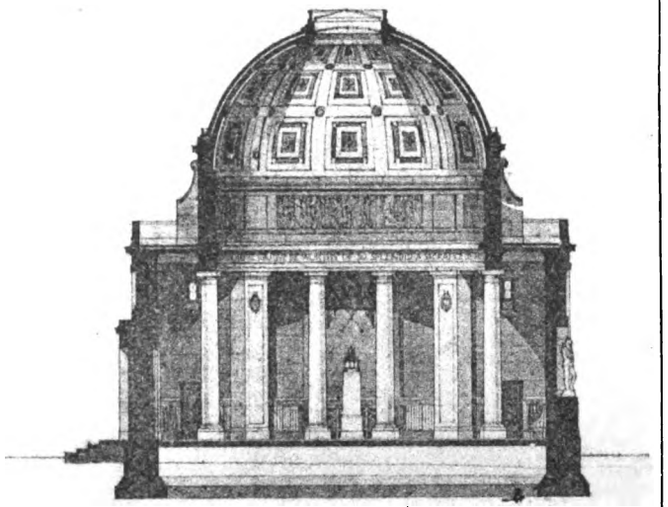
ELEVATION TO EASY ROW.



SECTION A-A.



GROUND PLAN.



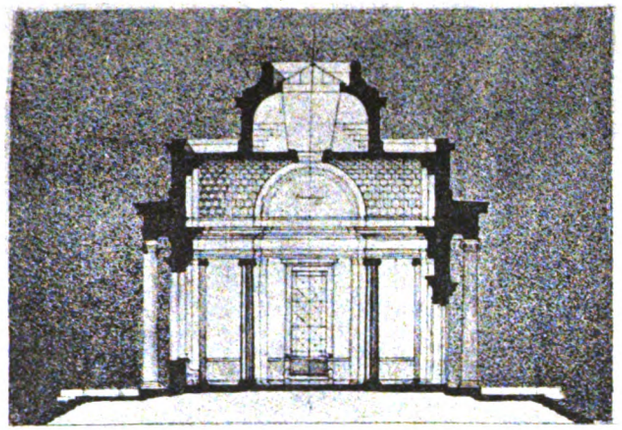
SECTION B-B.

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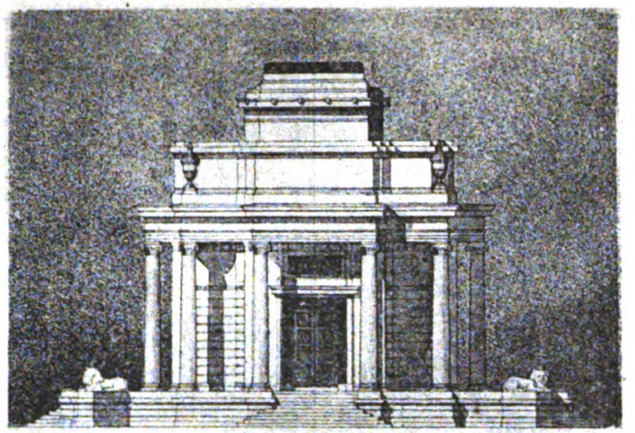
BIRMINGHAM HALL OF MEMORY.

DESIGN PLACED SECOND. EDWIN F. REYNOLDS, ARCHITECT.

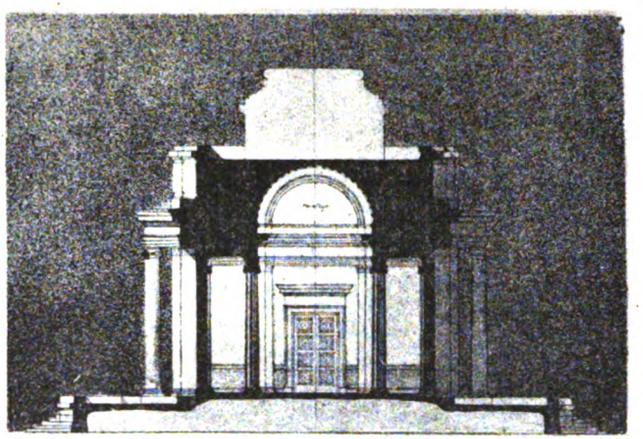
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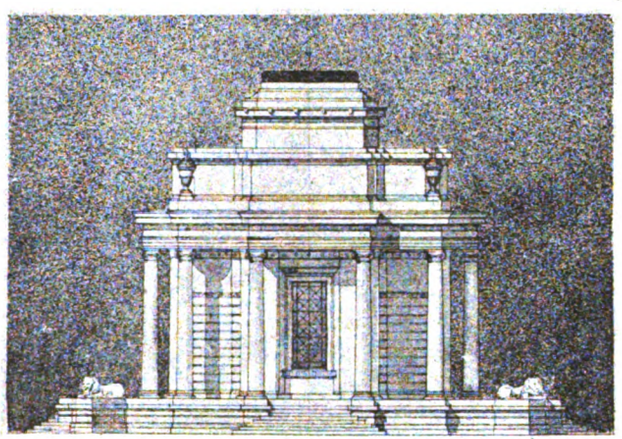
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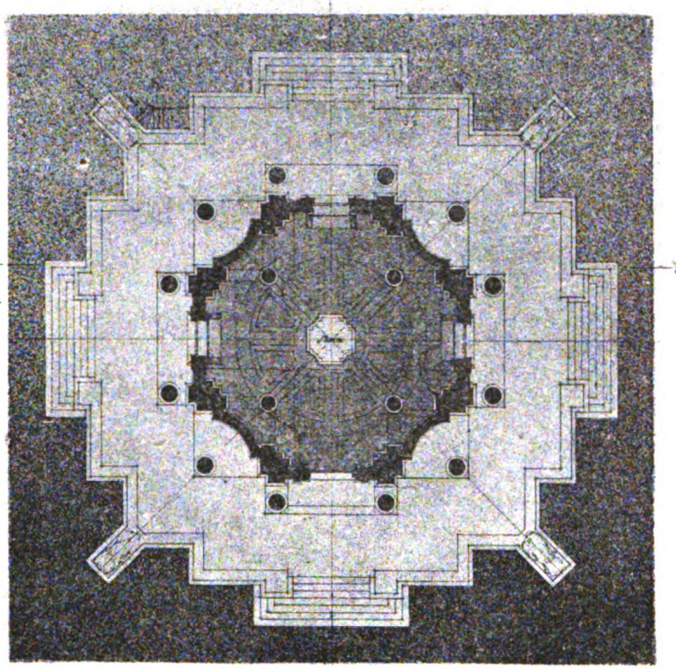
Elevation to Broad St. [illegible]



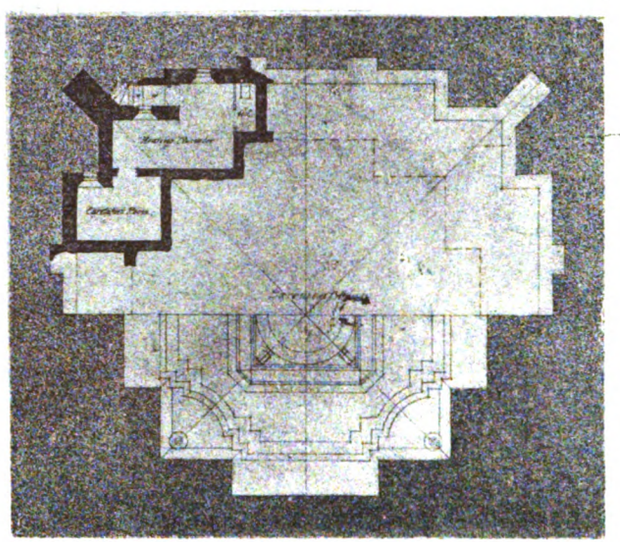
Section B B



S.W. N.W. & N.E. Elevations



Plan.



Half Plan of Roof

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BIRMINGHAM HALL OF MEMORY.

DESIGN PLACED THIRD. HOLLAND W. HOBISS. ARCHITECT.

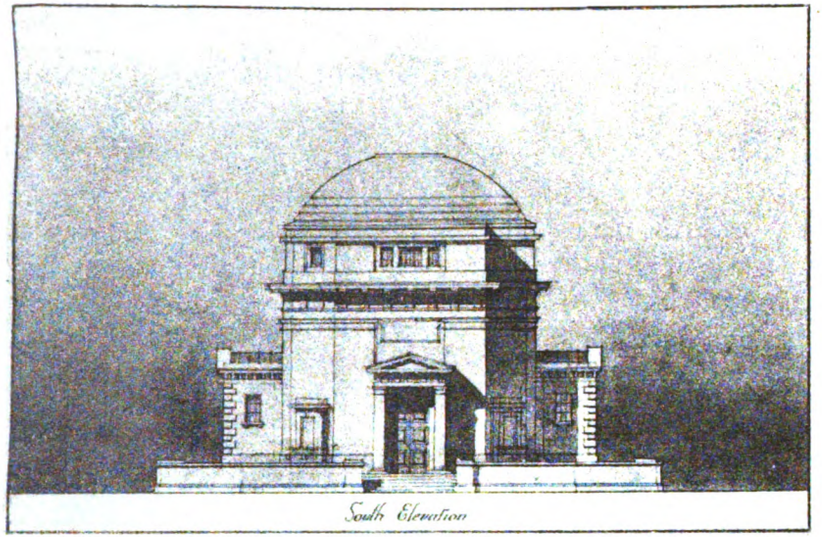
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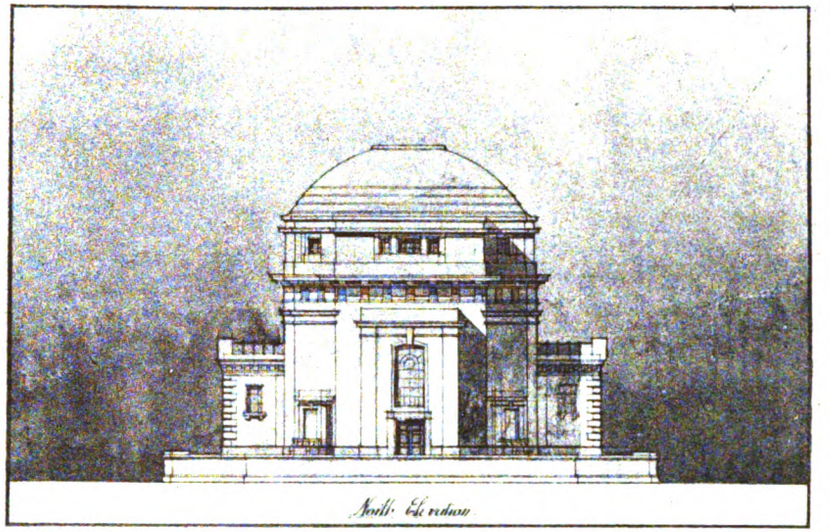
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BIRMINGHAM

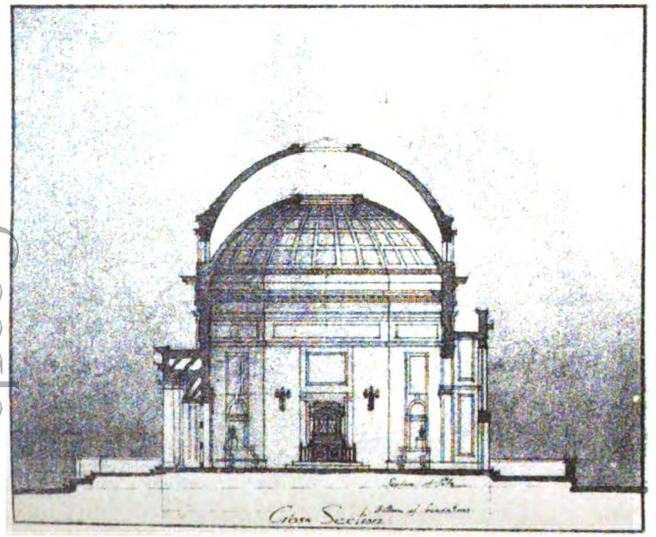
PROPOSED HALL OF MEMORY TO THE FALLEN OF THE CITY.



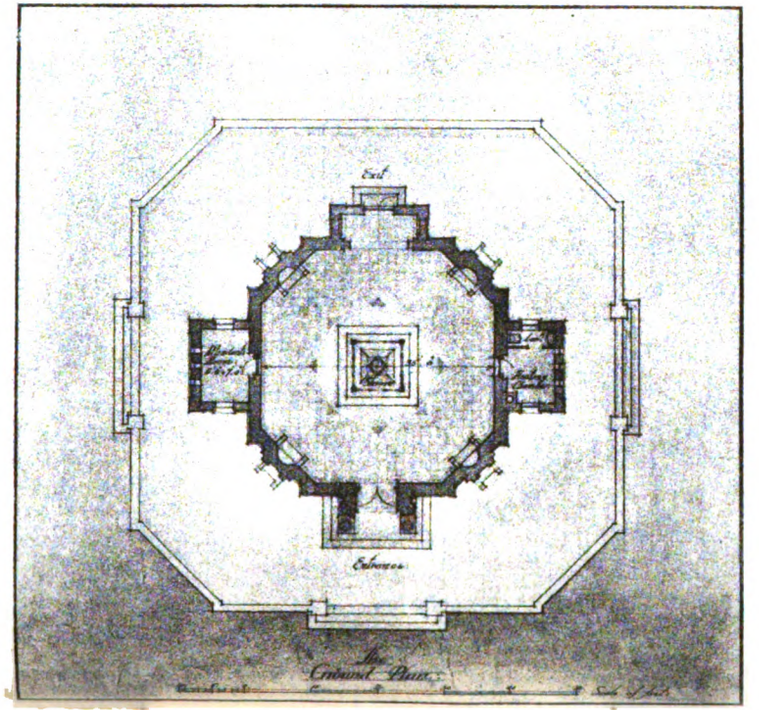
South Elevation



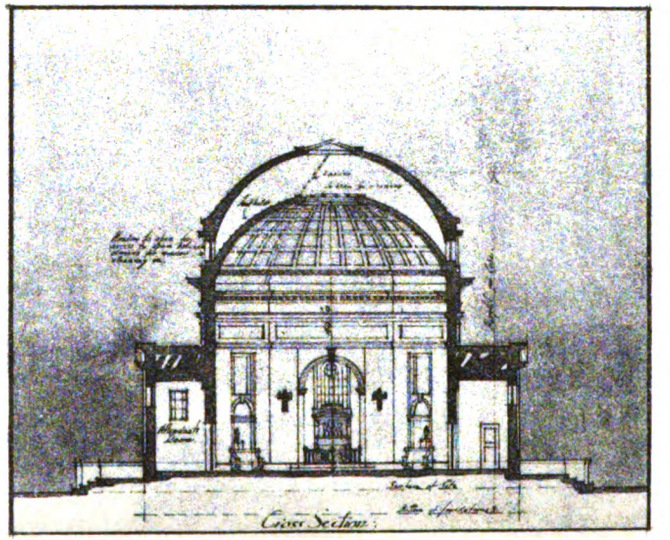
North Elevation



Cross Section

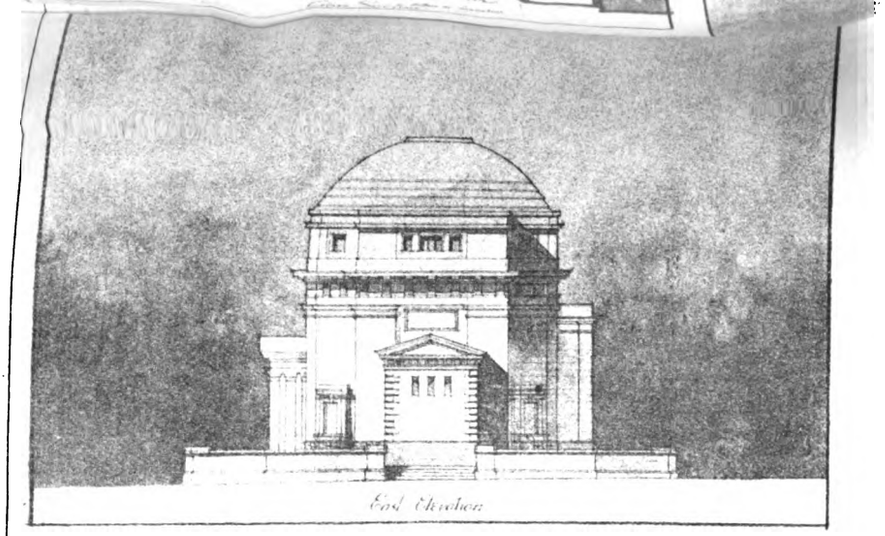


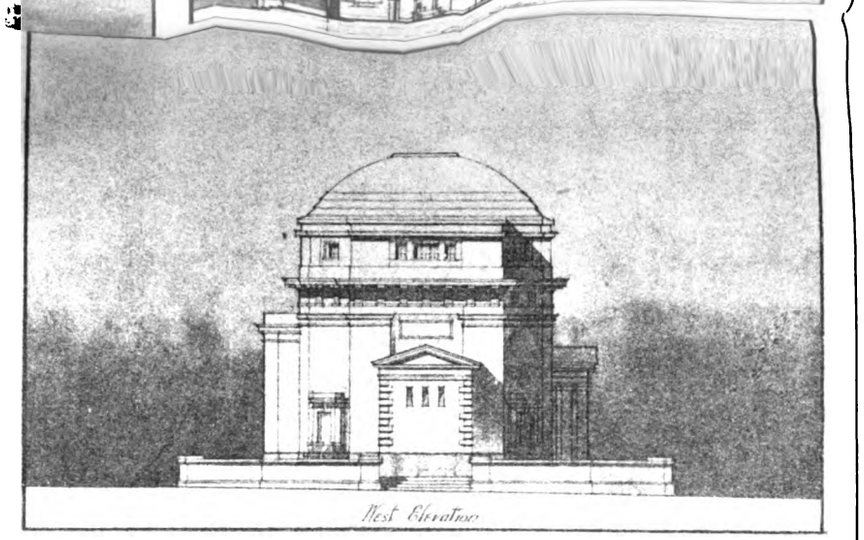
Ground Plan

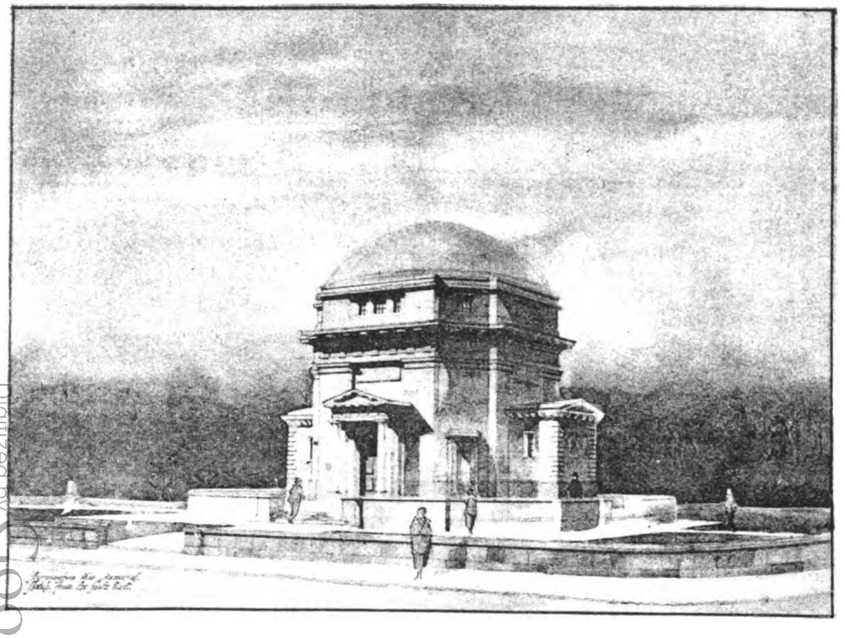


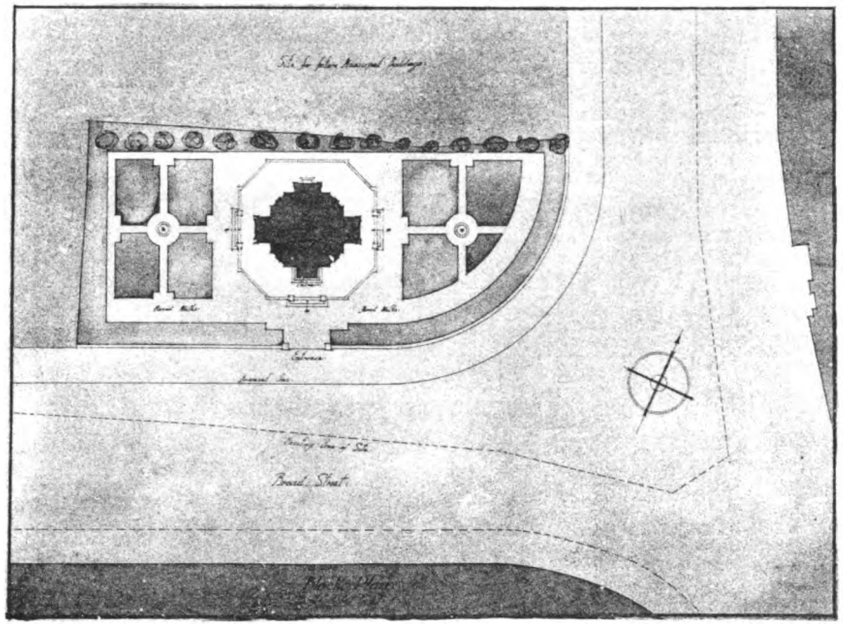
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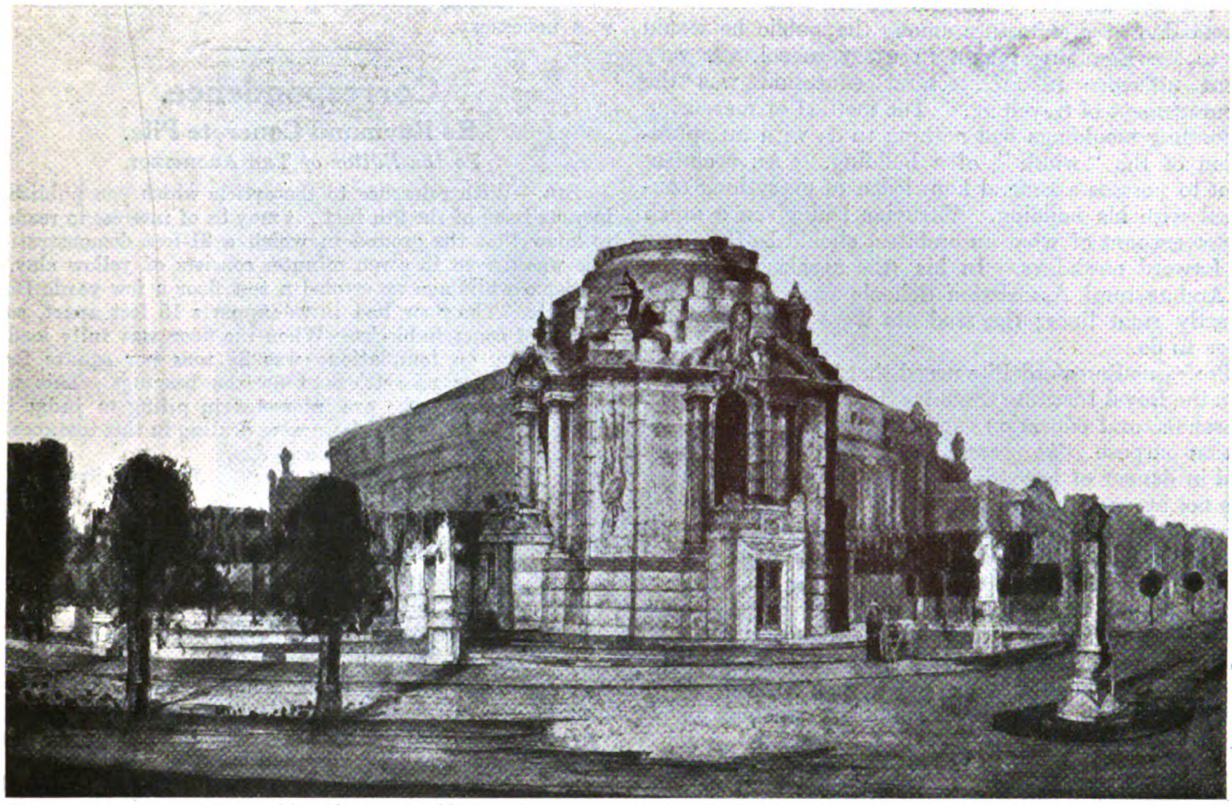
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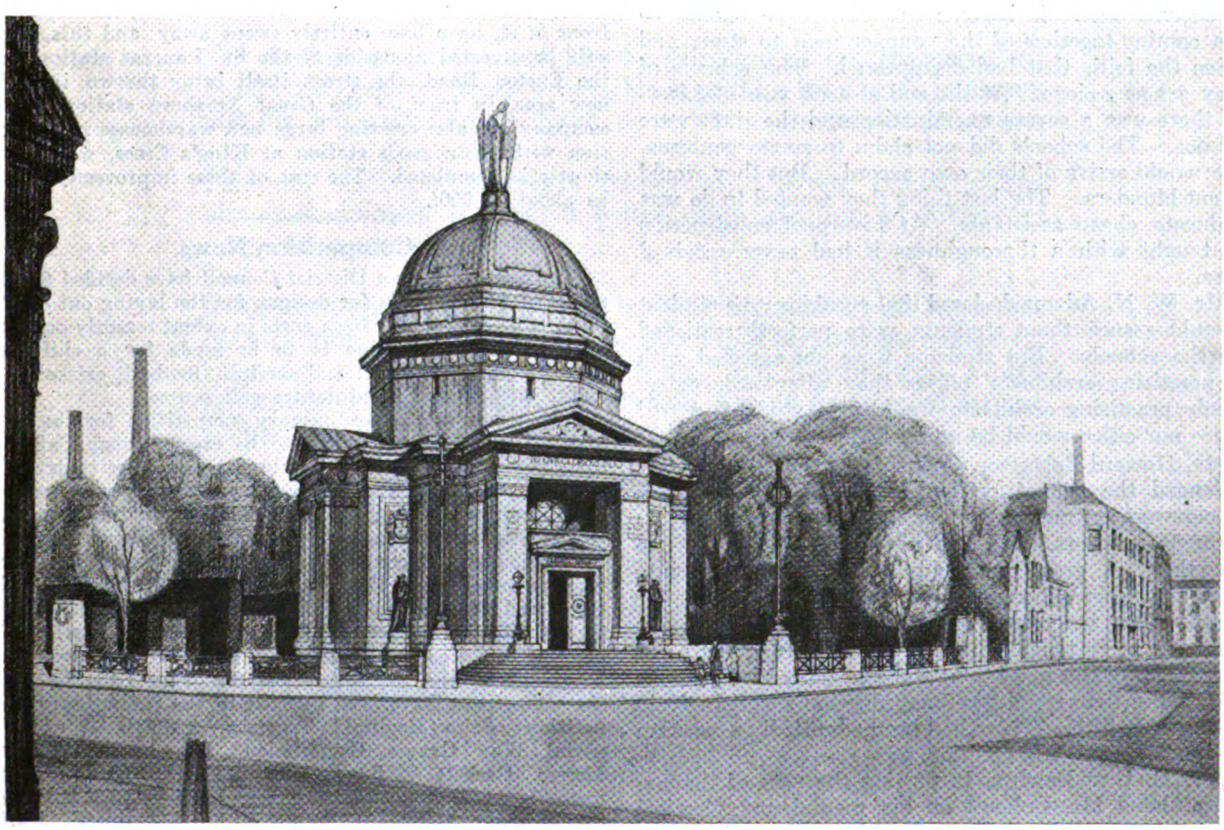
BIRMINGHAM HALL OF MEMORY.

DESIGN PLACED FIRST. COOKE & TWIST, ARCHITECTS.

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BIRMINGHAM HALL OF MEMORY, No. 18. Design by J. Coulson Nicol.



BIRMINGHAM HALL OF MEMORY, No. 6. Design by John B. Surman.

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St. Paul's proved that a man might be instructed in mechanics, engineering, and suchlike, and yet be a most artistic architect.

Mr. Edwin T. Hall spoke of the intense admiration they all felt for Mr. Collcutt. In order to create an appreciation of architecture among the public he would like to see sketching taught in every school. A very potent influence in architectural education was the encouragement of travelling. The method of measuring up footing mouldings had nothing to do with an appreciation of the "width" of a building. An architect ought to possess a general knowledge of everything connected with his building. Vitruvius had given a much stricter account of what an architect should be than any put forward nowadays. In his (the speaker's) opinion the Architectural Association Schools were going along perfectly right lines; the students were given practical things to do.

Professor Beresford Pite urged that the time had come when the Royal Institute should review the whole question of architectural education, and should call a conference for that purpose. At present the schools in this country stood in danger of becoming too academic. Englishmen were not by nature as academic as the French; ours was an extraordinary free character, which exhibited itself in strange ways. If that sense of liberty could be developed it would be well. Care would have to be exercised in thrusting upon the schools of the country a compulsory programme. Ought not the goal of architectural education be the production of good buildings and not of good camouflage? The tricky method of rendering drawings requested by the Institute was limiting students in an extraordinarily dangerous way. There existed a great sameness between the designs for the big prizes like the Prix de Rome and the R.A. Gold Medal. Such a sameness of outlook was very un-English, and very artificial. The whole thing ought to be reviewed at an early date.

Professor Reilly said that the real point about the necessity for schools seemed to be this. Down to the 'sixties or almost to the 'seventies a tradition existed in this country. All young men then in architects' offices shared the common enthusiasm. But things were different in the 'nineties, when the thread of tradition had become lost. It became essential there should be some coming-together of the younger men to study and replace the faith that had disappeared. The schools of to-day act as a sieve. At the end of each year at Liverpool there was a severe examination and the unfit were fired out. The schools did not claim to create geniuses, these would arrive of their own accord. But they would prevent blunders. The last thing they wanted to do was to educate cheap assistants. At Liverpool construction was taught with a thoroughness it had never received before.

Mr. W. N. Adams declared that speaking as a student he could assure them students were perfectly satisfied with the schools. But students were not satisfied with the practising architects' offices they afterwards enter. If only practising architects would give students a real chance our cities would be much better.

Mr. Howard Robertson (Principal of the A.A. School) challenged the suggestion by Mr. Collcutt that the schools were attracting pupils into the profession in enormous numbers. He had never seen any figures to show that. A great many pupils who used to go into offices now join schools, where they are much better trained. The suggested body of independent examiners would not be in touch with the pupils from every point of view as are the masters at the schools. Many pupils backward in the second year may develop surprisingly in the fourth or fifth. There had been admittedly a reaction towards a Beaux-Arts training.

Mr. E. Guy Dawber, in putting the vote of thanks, congratulated Mr. Collcutt on his mental and physical energy in coming to speak to them. From statistics recently seen he estimated that there were at the present time about two thousand students of architecture in this country. He could not help wondering whether it was right to encourage so many students to come into a profession which had so poor an outlook.

The vote of thanks was then passed by acclamation.

Mr. Collcutt, in a brief reply, reiterated his belief that the schools were trying to do a great deal more than was necessary.

Correspondence.

Re Raymond Concrete Pile.

To the Editor of THE ARCHITECT.

SIR,—With reference to the article which you published in your issue of the 9th inst., it may be of interest to readers to know that the ground in which a 21-foot demonstration pile was driven in seven minutes consists of yellow clay.

Some while ago we erected a test floor a few yards from this site. The floor had three supports 15 feet apart, consisting of concrete blocks. When the floor was fully loaded the bearing on foundations was 2½ tons per square foot, and there was no settlement on the bearings. This will enable architects who are interested in piling to judge the class of ground with which we were dealing in this instance.—

Yours, &c.,

J. & W. STEWART.

12 Berkeley Street, London, W. 1.
December 20, 1921.

The "Architect" Fifty Years Ago.

DECEMBER 23, 1871.

THE GREAT NORTHERN RAILWAY—NEW BUILDINGS AND EXTENSIONS.

THE Great Northern Railway Company have at present in progress several new works of an important character, involving the expenditure of a large amount of capital. These works include, amongst others, a material improvement in front of their Metropolitan station at King's Cross, by which a large and ornamental area will be thrown open to the Euston Road, whilst much greater facilities will be given as regards the approaches to the Great Northern Hotel, adjoining the company's station, and which has hitherto been seen to the worst advantage in consequence of the principal elevation of the building being surrounded by property of an inferior character. A large number of buildings immediately to the eastward of the St. Pancras station, and extending northwards in the direction of the Great Northern station to the boundary of the street in front of it, have been entirely swept away, and this street will be diverted alongside of the St. Pancras station into the Euston Road, the street itself being thrown into the new area in front of the Great Northern station. The company are also erecting large new warehouses in connection with their goods station at King's Cross, which will shortly be completed. The cost of these improvements will be about 40,000*l*.

Competition News.

The Seaford Urban District Council have decided to offer prizes of £50 and £25 for designs for the laying out of The Salts, a piece of land fifteen acres in extent recently acquired by the town. Provision is to be made for a children's playground, yacht pond and sandpit, football, cricket, and quoit pitches, and a miniature golf course.

The result of the preliminary competition for the great hospital and medical school to be erected near Cairo by the Egyptian Government has been received by cable. The competition was open to the world, and designs were received from many of the most distinguished architects in the United States, France, Canada, Italy, and elsewhere. Five out of the six places in the preliminary round have been won by members of the Royal Institute of British Architects, and the one successful foreign design is that of the firm of Messieurs Pierre & Louis Guidetti, of Paris. The assessor in the competition is Mr. John W. Simpson, Past-President of the R.I.B.A. The designs of the following six competitors have been selected in the preliminary competition: John Reginald Truelove, A.R.I.B.A., c/o Imperial War Graves Commission, Longuenesse, France; Messrs. Cackett & Burns Dick, FF.R.I.B.A., Newcastle-upon-Tyne; Messrs. W. & T. R. Milburn, FF.R.I.B.A., Sunderland; Messieurs Pierre & Louis Guidetti, Paris; Messrs. Lanchester, Rickards & Lucas, FF.R.I.B.A., and T. A. Lodge, A.R.I.B.A., 19 Bedford Square, London, W.C 1; Messrs. Nicholas & Dixon Spain, FF.R.I.B.A., 19 Hanover Square, London, W. 1.

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Birmingham Architectural Association.

The third general meeting of the Birmingham Architectural Association was held at the Society of Artists' Rooms, New Street, Birmingham, on Friday, December 2. Mr. H. T. Buckland, F.R.I.B.A., took the chair, and Mr. William Haywood, F.R.I.B.A., read the following paper on "Civic Energy."

My paper this evening is a sort of sequel to one upon the "Spirit of Cities," which I had the honour of reading to you last year.

My object then was to show something of the influence of environment upon communities; of emotional effects due to town structure; of that quality to which Sir Christopher Wren refers, when he says that "architecture has its political use" . . "it establishes a nation, draws people and commerce, and makes people love their native country."

I believe these assertions to be true (if we may define "architecture" for this occasion, as the application of suitable expression to a reasoned plan), and I propose this evening to discuss how the difficulty of giving "suitable expression" to community life under modern forms of democratic government may be overcome.

The energy necessary to carry out great public works in the past has usually been due to enthusiasm following upon successful war, or to the policy of rulers who have known the psychological effect of civic enterprise upon their peoples.

The ancient power of rulers, however, is now curtailed almost to extinction, and recent wars have not led to any great aftermath of energy for civic ideals (housing and town planning developments being, of course, due to other causes).

It is true that something resembling the old order of things still shows from time to time. A new Delhi may be created by Imperial decree, or a new capital city is projected, as for Australia. The former, a true Imperial act; the latter, the result of a political compromise, arising from the claims of rival cities to metropolitan honours.

For the majority of cities of to-day, however, betterment must come through the ballot-box, and it is apt to lose much of its inspiration in the process. The problem varies in different countries, but whether initial action is sometimes assisted by the law as in England, or left to private enterprise as in the United States, there is discouragement for the promoters of civic betterment at every step.

Practically all attempts at civic improvement arrive at a point where they must be supported by public opinion or come to nothing, and it is because Birmingham and similar cities must before long face great civic demands, that I want to show by records established elsewhere, the kind of effort which is required of all citizens who wish to see the towns in which they live intelligently developed.

Let me first refer briefly to a typical example of work already accomplished by civic energy before dealing with the effort itself.

Dusseldorf is a comparatively new industrial city of mills, factories, and workshops. In 1871 its population was 69,000, in 1910 it was 300,000. An impartial observer claims that its citizens have dreamed dreams and carried them to execution; that the city is as beautiful, and as full of the joy of living as Paris, is managed with scrupulous honesty, scientific efficiency, and devoted pride. It is built for the comfort and convenience of its people. It is designed as master architects might design a World's Fair to which all mankind was invited for education, recreation, and art, everywhere are parks and playgrounds as artistic and varied as landscape architects can make them. The parks run into the heart of the business district, and the individual property-owner is no more permitted to spoil the harmony of the whole than an incompetent workman would be permitted to wreck an expensive machine.

Everything is orderly, systematic, and beautiful. Dusseldorf is planned for fifty years to come, and on the maps in the City Hall one can see the location of future streets, open spaces, and public buildings, while most instructive of all is the fact that all this municipal activity has been promoted by the business men of the town.

Examples of this kind could be multiplied, but Dusseldorf will serve my purpose. The origin of such works is a conviction that it is the duty of every citizen to help make his city a clean and comfortable place in which to live while he is establishing his business and making money; and that incidentally it is a splendid business investment to make a city attractive to both resident and visitor.

I shall assume without further preamble that city planning in its widest sense, sociological as well as physical, underlies all commercial and social problems, and proceed to describe the sustained effort which has been required in a typical instance, to convert public apathy towards betterment into civic energy.

In presenting the activities of Chicago as an example of civic energy, it will be necessary to explain something of the work around which this energy has grouped itself, work which is worth studying for its own sake, but which in developing my main thesis, it will be necessary to keep more or less in the background.

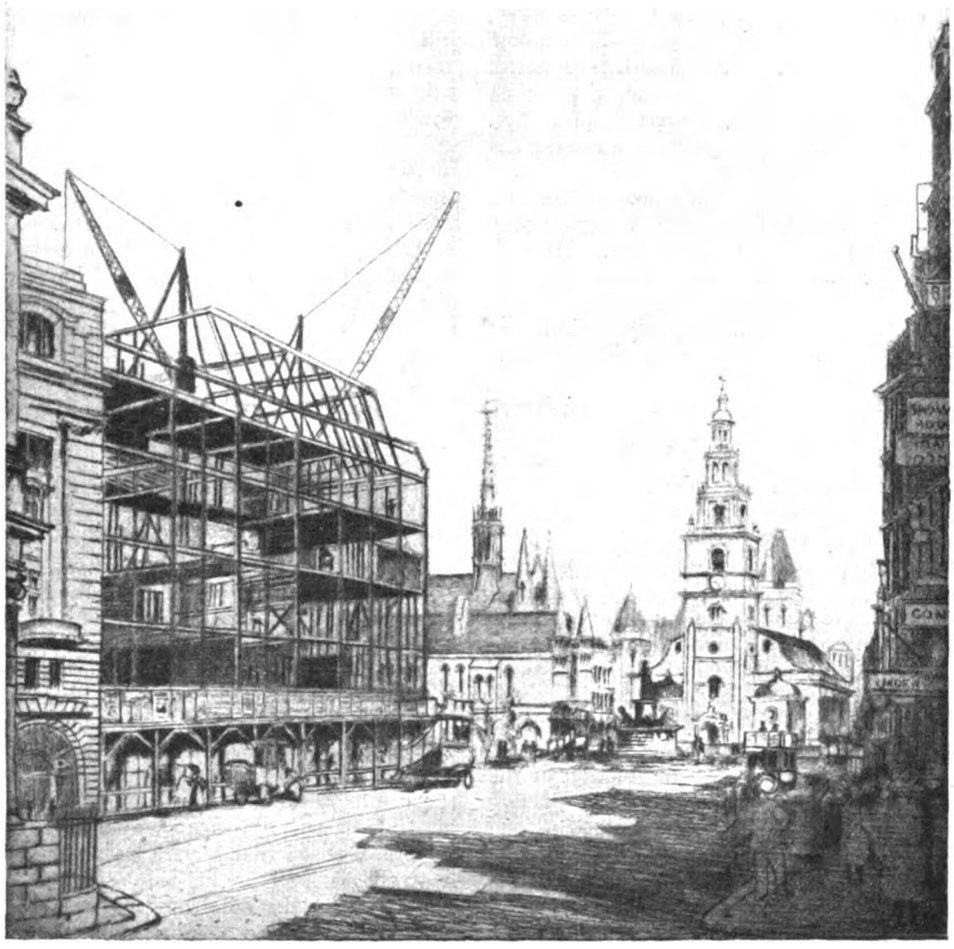
The beginnings of recent civic action in Chicago date back to the Columbian Exposition or World's Fair in 1893. The lay-out and buildings of this Fair impressed prominent members of the Exposition's board of management, with its contrast to the unnecessary disorder and ugliness of the city proper in which they lived and worked. Gradually the idea took form that the city itself might have much of the spacious beauty of the Fair if public opinion could be sufficienaly interested to want such a development. From time to time suggestions for fragmentary improvements were made. First it was suggested that the 686 acres of the Fair grounds should be preserved and made permanently attractive. Then a new park was planned to reclaim part of the lake front, and so for ten years, chiefly by suggestions coming from the two premier clubs of the city, tht "Commrecial" and "The Merchants," the impulse towards new civic possibilities was maintained. In 1901 the first suggestion for a plan of the entire city came from a subsequent secretary to the U.S. Treasury, and was made in an address to the Commercial Club. At the same time the President of the Wabach Railway Company was issuing a brochure accompanied by a map of the city as it was and as it might be. In 1905 a member of the Merchants' Club advocated that the club actively take up the problem of a city plan, and in 1906 Mr. Burnham, chief architect of the World's Fair, was asked if he would accept an invitation from the club to make the plan required.

Simultaneously the President of the Commercial Club wrote to the architect saying, "I am extremely glad that the Merchants' Club has taken up the matter of a plan for Chicago's development, present and future. What we all wish is to get you to work, and to accomplish the thing." (I want you to particularly notice the kind and class of men who put forward civic dreams in Chicago as practical and profitable possibilities. Business men—directors of railways, merchants, and so on.) A consulting board appointed by the club for the purpose of preparing and exploiting the proposed plan, included the Governor of the State, the Mayor, the presidents of all the Governmental agencies in the city, presidents of the leading civic and commercial organisations—of the Art Institute, the Society of Engineers, and Institute of Architects.

This committee was scarcely well at work when the two clubs to which I have referred were merged as "The Commercial Club." New and forceful personalities came to the fore, among whom the chief was Charles H. Wacker, who for ten years or more has acted as chairman of the club.

In ten months of hard labour on the plan by technical workers, during which time the committee, working day

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and night, held eighty-three meetings and 200 conferences with individuals or organisations, the final report was ready (you will observe that we are not approaching the energetic stages). The president of the club at that time was a wholesale dry-goods merchant, and in presenting the report he said: "The very foundation and aim of this work which was begotten by the Commercial Club, born of the Technical Club, and nurture developed, and completed by the new Commercial Club, is to develop the enduring prosperity of Chicago. We have had in mind all the time the question of what is best for Chicago fifty or one hundred years hence."

Nearly 300 conferences were held with the Governor, Mayor, nearly all the Aldermen, Park Commissioners, Army and Navy engineers, railroad and traction engineers and officials, harbour and drainage experts, property owners, associations of commerce, the Press, members of the State Legislature, Congress men, &c., and five Bills passed the Illinois Legislature affecting the plan.

You are to note that all this was prior to the first Town Planning Act in Great Britain which assigned such duties by preference to the local authorities. Here in Chicago, incited by the direct evidence of the World's Fair, the whole of this complicated and extensive procedure was undertaken on faith by a group of business men, who found the money and gave lavishly of their very valuable time.

As a matter of fact, America has passed no Town Planning Act which resembles the English model, and they remain of opinion that the work is best brought up to the plausible stage by independent effort. The city plan, they say, is a business proposition, and should be developed under the direction and control of business men. Political administration, whether city, county, or State, is subject to too frequent changes of personnel and policy. There is even great jealousy between the various departments interested, which is largely discounted if the public itself can be brought to demand a reform with which they have been made familiar, and which has been efficiently worked up to the point of acceptance.

Among the experts engaged on the production of the plan were Jules Guerin, the celebrated artist of two continents, who was employed on special designs and colour work, Walter J. Fisher, an eminent attorney who prepared the legal opinion on procedure, and Charles Moore, secretary of the Worthington Planning Commission, who was employed on drafting the report of the experts.

This report was embodied in a splendid volume with reproductions of wonderful drawings and paintings for public distribution, and it is said to be the most splendid report on city planning ever published.

The first meeting of the General Committee for the purpose of preparing the plan was on April 30, 1908, and in slightly more than a year the plan was completed to the last detail, published and distributed, the Commercial Club finding all the money.

As this part of the work neared completion the question of a permanent city commission was considered, a different organisation was now required, one backed by the city. The Chairman saw the Mayor, and the Mayor agreed to the proposal on condition that the chairman of the club, Charles H. Wacker, became the permanent chairman of the Commission. This was in November 1909. An educational propaganda was at once undertaken by the Plan Commission. This required a large fund and the one hundred members of the Commercial Club subscribed a further £20,000 for the purpose. It was decided that the plan must be shown and explained to the people by means of a publication, something less gorgeous and expensive than the edition-de-luxe already issued, a small book was produced, and named "Chicago's Greatest Issue—an Official Plan." One hundred and sixty-five thousand copies were published and distributed at a cost of £4,500 to every property owner in the city, and to persons paying a rental above $25 a month.

The language of the book was simple, and the story told just where the interests of the ordinary citizens were involved.

Another book was produced for the children, for it was realised that a scheme which planned for a century ahead would need constant relays of voting strength. This text book, "Wacker's Manual," was adopted by the Chicago Board of Education in 1912, and made part of the curriculum of the eight-grade course. This was a wonderful thing in several ways. It was a unique procedure in America (and I am inclined to think in the world). It was testimony to the importance of city planning in the lives of citizens of all ranks, and it was good tactics, being a valuable stimulus to civic consciousness, giving vital information, without which the future voting strength of the city on this somewhat technical subject would have been as casual and meaningless as voting usually is.

The propaganda work referred to has cost a deal of money, and the amount expended conveys some idea of the faith of the promoters in their work. The Commercial Club members have subscribed £49,500, plus £2,000 a year, for five and a-quarter years for the maintenance of a technical staff. The city gave an initial £1,000 when setting up the commission, and subsequently £3,000 a year for the following six years, making totals of £60,000 and £20,000, or £80,000 in all.

Now the thing to notice about this £80,000 is not the greatness of the sum expended on a civic ideal, but that the money was found by practical business men, men who invested their money in a project which they knew to be for the good of the city. They have said that "the plan of Chicago means the city practical, and that dirt, grime, and sordid conditions are not a part of industrial and commercial success. They are rather evidences of failure to grasp the fundamental truth, that men whose lives are cast in pleasant places, who are clean of mind and body, are the men who best do things." The city's commercial and industrial supremacy rests upon these factors, and I should like Birmingham manufacturers to realise that work such as Chicago has set herself to do, is sheer super-commercialism. Just as the small shop has given place to the monster store, with the mechanical perfection of a watch and the beauty of an Italian palace (because and only because it pays). So it is realised that buyers and others judge people collectively as well as individually, and that as they are influenced by the efficiency and taste of those who display their wares to advantage, so they take impressions of people as a whole by such evidence of corporate action for betterment as they may see. Where there is civic apathy it goes to the discredit of business, and in Birmingham one is constantly checked by paltryness in civic spirit. We have recently had to suffer a scathing criticism of our British Industries Fair, and have earned it by the complete absence of collective expression and sense of design in that undertaking. One is reminded also of a letter in the Press some time before the war, written by a South American buyer after a visit to Birmingham, whose impressions of our city were too disheartening to be repeated, and I refer to them for the sole purpose of emphasising the importance of civic energy in the mere making of money.

A few notes on the development of the Chicago plan to date will illustrate another phase of civic energy. The West Twelfth Street improvement was first considered by the Plan Commission in November 1909, approved by the City's Board of Local Improvements fourteen months later, and the bond issue for its construction authorised in November 1912 by a majority of 21,787. The suit to secure possession of the necessary land began in November 1914, and in November 1915 the court overruled all legal objections.

The first piece of property was paid for in August 1916, and on the same day the pulling down commenced. Thirteen months later the first section was completed, and a great celebration of this event was attended by more than 100,000 people. It is strong evidence of a

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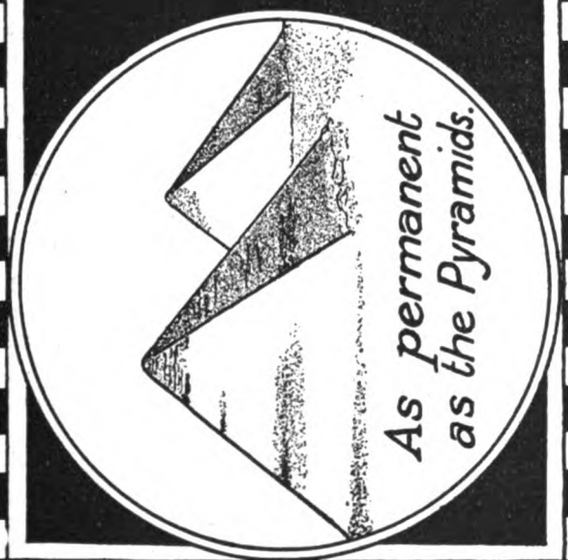
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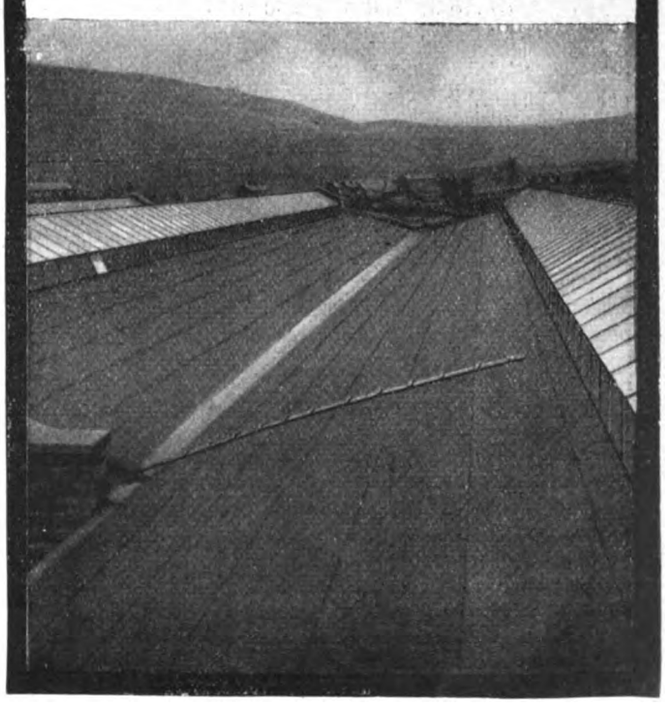
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fine civic spirit that so large a number of citizens should assemble for such a purpose.

The next section taken in hand was the Michigan Avenue extension, a one mile widening from 66 feet to 130 feet, with two levels to one section of it taking heavy and slow traffic below and light traffic above.

A double-decked bridge 210 feet long and 90 feet wide is included in this scheme, as a result of which traffic has been facilitated 200 per cent. at a point more highly congested than London Bridge. This work was authorised in 1913, but legal processes held up the actual commencement until April 1918, when the first building was demolished after an automobile parade around the entire boulevard system.

In August 1912 the Pennsylvania Railway Co. published elaborate plans for a new Union Station in Chicago. These plans completely ignored the city plans, and action was at once taken by the Plan Commission and its supporters. Scores of meetings were held, plans were made and re-made, and much argument published.

Early in the debate, when the discussions became aggressive, a strong citizens' committee of seventy-five of the city's leading business men organised themselves to assist the Commission with the best legal and technical advice. A special Railway Terminal Commission was set up, and the whole matter considered in the light of city betterment.

The Plan Commission officials originally opposed the company's plans to occupy the heart of the central west side with freight terminals and overhead tracks. They also offered alternative plans fully adequate for the company's needs and far less harmful to the public interest, and as a result the railway people completely changed their freight lay-out, and proposed an entirely new set of plans which were acceptable. The Commission was not successful in its proposal to move the passenger station elsewhere, but they secured $6,000,000 from the railway company for sixteen major public improvements which were calculated to moderate the obstructive conditions set up by the site as retained.

The last section of the plan to which I shall refer is the scheme for completely remodelling the lake shore for a distance of twenty-one miles. The record of this scheme is long and complicated. National railway and private interests have postponed its accomplishment in spite of the fact that it is full of magnificent possibilities at almost negligible cost.

In 1916 the Plan Commission showed that the city could make 1,280 acres of park lands in twelve years by filling submerged acres between Grant and Jackson Parks with the city's waste material, not only without cost, but to produce a revenue of $13,000,000 and lands worth $46,000,000.

Negotiations are still proceeding to adjust the various interests involved, and it is confidently expected that the proposal last made will be adopted. In the meantime more than 200 acres were added to Lincoln Park in 1915 by filling in the lake shore, and already there has been formed a yacht harbour, a lagoon, picnic island, rowing pond, playing fields, bathing beaches, and a golf course. A magnificent municipal pier has also been constructed, with freight cars and locomotives on the lower level and street cars discharging passengers directly above, steamers dock on both sides, and there is an elaborate system of promenade decks. At the outer end is an auditorium to seat 4,000 people, concert and dance rooms, children's rooms, restaurants, and rest rooms.

Many other projects are contained in the city plan, including proposals to secure no less than 54,572 acres of forest land around the city, much of which has already been acquired as a profitable investment.

The expenditure on the six sections just referred to, representing the initial work on the plan, has amounted to about £30,000,000, of which the greater part is to be borne by railroad and private corporations, the balance being levied for the most part upon benefited areas.

I hope it is now evident that civic development is making most progress where it is in the hands of people with no time or money to waste. Such development is a business proposition, requiring first, the work of fine civic dreamers, and subsequently the achievement of that most difficult of all operations, the awakening of public interest in a new cause, and the raising of public purpose to the level of definite action.

I dwell upon this latter aspect of the problem because it is usually the least regarded, and it is the most difficult as matters stand to-day. The time is coming when civics and citizenship will be taught in our elementary schools in place of other far less important and less interesting subjects. Such instruction will inform the average member of a community what kind and quality of public service he should stand for, the duties as well as the rights of man, and when our children have been trained in this knowledge, and come to an age when it can be applied, the task of the civic reformer will be relieved of its heaviest burden. In the meantime the far more difficult operation of arousing the adult remains the heaviest task in civic betterment, and it is necessary that those who look for improvement in their own environment on a scale at all commensurate with the works already achieved elsewhere, should realise the extent and kind of labour which is necessary in order to bring such dreams to fruition.

This work calls for the united efforts of our best citizens, its effects are endless, and in all directions it makes for good.

It will bring to everyone those joys which are so possible in communities and which are so difficult or impossible for many individuals in their private environment, it is a work to make life worth living, largely because it aims at a maximum efficiency in all things, and because it makes for efficiency it should have the active support of all practical business men. It is indeed the chief lesson of the record I have given you, that the publicity and propaganda phase of civic development falls naturally to the business elements of the community to carry out. It is the dogged persistence of the commercial people of Chicago which has made the great improvement of their environment possible, and it is this persistence for such a purpose that makes the best example I can offer of civic energy.

At the conclusion of the paper a vote of thanks to the lecturer was proposed by Mr. F. H. C. Wiltshire, the Town Clerk of Birmingham, and seconded by Mr. Harrison Barrow.

Housing News.

The Leeds Corporation Improvements Committee have accepted a tender from Messrs. William Airey & Sons to complete the erection of 88 houses partly erected by the Waller Housing Corporation on the Crossgates housing estate.

The Barry District Council has received sanction from the Ministry of Health for the borrowing of £23,600 for the erection of forty houses of the non-parlour type at the Central estate. The work will now be proceeded with.

Spalding Urban Council have entered into a new contract with the local Builders' Federation for the erection of twenty additional houses at a price of £750 per house. This is a reduction of £165 per house as compared with a similar contract at the commencement of the year.

Merioneth Small Holdings Committee has accepted the tender of Messrs. Pugh Bros., Barmouth, amounting to over £3,000, for the erection of three new houses and three sets of farm buildings at Morfa Fawr, Harlech, for small holders, whilst the tender of Messrs. R. Roberts & Son, Bala, amounting to over £4,000, has been accepted for small holdings buildings in the Bala district.

Port Glasgow Town Clerk has been informed by the Board of Health that they had secured the sanction of the Treasury to the provision by Local Authorities in Scotland of a certain number of additional houses, and that they are prepared to allocate to Port Glasgow a further 158 houses. This means that the scheme at the Chapelton site will now proceed in its entirety. It is likely that new schedules will be issued for this scheme, and that work will be commenced with the actual building early in the New Year. Meantime the work of road formation and the construction of sewers is proceeding.

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Architectural Education.

WE are in general agreement with much of what Mr. Collcutt said at the Institute, especially as to the necessity of doing all that can be done to discourage those who have neither private means nor marked ability from entering the ranks of a difficult and uncertain calling. And here the architectural schools provide what may be described as a dilemma. The best of them, and pre-eminently the Architectural Association, are a world in miniature in which educational courses are made both interesting and pleasant; in which the students are surrounded by hope, for none of them have met with failure, and in which *esprit de corps* is strong enough to prevent the student who may have doubts about himself from turning back. What should be done seems to us to be this: The student should be warned at the outset of the difficulties and dangers of his proposed calling, and he should be asked whether he has any independent means or interests. At the end of a certain period—say, the first year—the teaching staff or one of its representatives should make a written report on the promise shown by the student, and these reports should be filed and kept. If of an unfavourable nature the Council of the school should send the student a written notification to the effect that he is advised to seek another calling. Mr. Collcutt evidently feels that there was in many ways more in the old-fashioned methods of twenty years ago than in the latter-day developments, which he feels are unduly influenced by French and other foreign methods, and the lure of the academic design and its "rendering." In this we believe he is partly right. The student of those days usually spent much of his spare time in measuring and sketching, both laborious undertakings with which the modern student has often had little experience. If the tendency was to measure and sketch "bits of detail," the student did at any rate come into contact with actual problems of brick, stone, and materials which sometimes elude the "slave of the drawing-board," and this practical acquaintance with building, we believe, made possible the great revival of our domestic architecture and the glory of the best of our modern church designs, both of them unequalled in modern European architecture. Neither of these successes can be imagined as arising out of the *esquisse* or the three hours' study, but this is not to say that either of the later developments is wrong, but that they may be too exclusively adhered to. Unfortunately we are limited in our powers, and it is practically impossible to advance without retrograding somewhere at the same time, and we believe that both the architect and the student of to-day have in some respects retrograded, although the general level and quality of our work may be better. The best of the work of Norman Shaw and of Belcher and Sedding possessed a joyousness and vigour which we often feel has been starved out of English work to its detriment. Again, we are heartily in sympathy with Professor Beresford Pite in his belief that our work can never be confined with advantage between too academical limits, and that which is sauce for the goose is not necessarily the best medicine for the gander.

But the exact nature of the best education for any architectural student must depend a little on the line which he thinks he can best cut out for himself in after years, and as we are limited in our power of absorbing knowledge most of us would be wise in taking thought for the morrow at the outset of a career. The facts as we see them are these: A small number of men have grooves made for them and possess relations who already have sound and lucrative practices. There are still a few architects who have so much influence either in a locality or among a specialised class of clients that their sons can count on following a road already prepared for them, but these are the fortunate few. There are others, having considerable private means and influential connections, on whom fortune smiles, whether they are pre-eminently blessed with talent or otherwise.

A third and much smaller category is that of the men of superlative ability who would succeed in any calling and circumstances. But outside these three small classes of men are the great majority who have small private means, if any, and only moderate ability, but who must strive to attain a foothold, and the question is, How can this best be done?

The competitive process has served many in the past, but has probably been more uncertain than roulette to the majority. Friends are slowly acquired, and those who look for work from personal contact with friends and acquaintances find it a waiting game. But the architect who can show a speculator how to make money out of dealing with sites for buildings will in time succeed in building up a sure and well-established position. It is probably because architects as a rule do not thoroughly realise the intimate relations of building and finance that many of them never obtain good practices.

The point we touch on here seems to us to be one which dominates the whole situation, and suggests the almost inevitable rearrangement of the architect's position in the future. The average man who wishes accommodation, whether it be a house or an office, prefers, as a rule, to buy rather than to build, and as the accommodation to be sold or rented is for the most part provided by speculators, often without the interposition of an architect, the latter's jobs are few and far between. And yet we know that the architect worth his salt could build and plan better than the speculator or his builder. Why should not some of our students note this and, instead of waiting for that *rara avis* the client, enter into equal partnership with an educated contractor and build and sell what the great majority of men want? This would amount to the revival of the master builder of past ages in a new and revised setting, but might it not solve at a stroke the question of the future of many an architectural student, and save the face of the country from ill-designed buildings? We shall be told that this is revolutionary, but it is in reality what our friends the engineers do. Engineers are

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divided into executive engineers of many kinds and consulting engineers, and we have never heard that the standing of either was prejudicially affected thereby, and see no reason why the scope of work which is designed by architects should not be enormously enlarged if the right methods are adopted, and we think that this suggestion is at any rate worth the careful consideration of many now in our schools of architecture.

Those of us who are already in practice, like old dogs, are too old to learn new tricks, but the world is open for younger men, and if such a movement took place it would naturally affect the question of the education of those architects who wanted to fit themselves for it.

We agree with Mr. Collcutt in thinking the curriculum proposed by some of the schools sounds awe-inspiring, but in practice these immense lists of high aims usually resolve themselves into comparatively simple propositions. In making an application for an appointment a man, usually without departing from the truth, gives what reads like a lurid picture of a super-man, but such testimonials are considered *cum grano salis*. We agree with Mr. Collcutt in thinking that the architect and the architectural student does not want to know everything, and should feel inclined to say his aim should be an ability to "size up" his client and give him what he wants without unnecessary friction or delay. In the process it is really immaterial whether he has to draw on his own knowledge or that of others as long as he knows what to do and how to get it done. Some men can more easily acquire knowledge in one form and some in another; the chief point is for the individual to know his weaknesses and how to make them good.

We hope Mr. Collcutt will before long give the R.I.B.A. another paper, as whether he comes with Olympian thunders or in peace he will alike receive the warm welcome of his many friends.

Illustrations.

SKETCHES OF THAXTED, ESSEX. By Gordon Hemm.
THE CATHEDRAL CHURCH OF ST. PHILIP, BIRMINGHAM. Thomas Archer, Architect,
VIEW OF CHOIR AND CHANCEL. Windows by Sir E. Burne-Jones, Bart.
WAR MEMORIALS. Designed by J. Harold Gibbons.

The sheet of memorials illustrate some of those lately designed by Mr. J. Harold Gibbons. The stone ones are mostly executed of local material, and the names of the craftsmen are noted on the drawing. The stone crosses in their main proportions have been based on those which are being erected in all the British cemeteries on the battlefields in order to keep a continuity of thought. The wood tablets are all coloured and gilded, and where possible a little colour is introduced in those of stone as well—as at Chapel Allerton, where the figure is gilded.

Notes and Comments.

Higher Buildings in London.

Mr. C. Lovett Gill has written a very good letter to the "Observer," in which he argues that the repeal of the Prescription Act with regard to heights—the abolition of our old friend 45 degrees—would do more to solve building difficulties than any legislation to increase the general height limit of buildings. Property round such areas as Soho and Red Lion Squares cannot at present be dealt with as though there is abundant space in front the heights in rear would be unduly restricted because of ancient lights. We agree with Mr. Gill in thinking that the repeal of the prescriptive rights would give a great impulse to building development in London, and we see no reason why the weight of professional opinion and action should not be united in a great effort to secure the alteration of the law. With regard to higher buildings in London there are positions in which much higher buildings could be erected with gain and not loss to architectural effect and to general amenities. Such sites are limited in number and should be carefully chosen; and if so there would remain the problem of the manner in which the increased ground value of the site should be dealt with and divided between the local authority or State and the individual. For it would be impossible to give some owners rights not accorded to others without some compensating considerations, and if these were equitably arranged it is possible that the owner would have some little inducement to make use of his privilege.

The Dundee "Mystery House."

The "Dundee Advertiser" gives an interesting account of a discussion which took place about the "Mystery House," which has been erected at a cost of £8,400, and with respect to which the Scottish Board of Health refuse to give a subsidy. Mr. Thomson states that the house has been so planned as to give the most convenient and compact arrangement of apartments. In the equipment almost every form of labour-saving device has been introduced to give the best practical illustration of how a labour-saving house can be provided, and from which citizens may obtain information and guidance, whether for a small house or a large one. Mr. Thomson did not expect the Board to refuse the cost of the house as part of the Balgay scheme, but states that its cost should be considered as a fair charge on successful land deals for services in connection with which he is not paid. He states that on such transactions he has recently made £48,000 for Dundee, and should be looked upon as the donor of that amount, and that what he proposes is practically that £40,000 should be paid to one account and £8,000 to another. The Housing Committee do not seem to have been quite pleased with the informality of the action of Mr. Thomson, but we have little doubt that he will in the end obtain their support, as he has proved himself to be one of the most able and energetic of municipal servants, and has done great work for Dundee.

Birmingham Hall of Memory Competition.

A Correction.

The names of the authors of the design placed third in the above competition should have been stated as "Baron C. S. Underhill & Holland W. Hobbiss," architects, and not as stated in our inset—"Holland W. Hobbis." We regret the mistake.

Competition News.

The Design for Cenotaph Garden at Grimsby.—The three premiated designs are as follows: First prize (£5), Mr. W. H. D., c/o Messrs. W. Kirkpatrick, Ltd., Trafford Park, Manchester; second prize (£3), Mr. Douglas W. Scott, Landscape Gardener, Skinner's Lane, Waltham; third prize (£2), Mr. C. King, 1 Somersby Street, Grimsby.

The Machynlleth War Memorial Committee have selected a design, No. 4, submitted by Mr. Leonard Williams. The inclusive cost must not exceed £600.

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The Village of Thaxted, Essex.

By Gordon Hemm.

(See Inset Illustrations.)

The village of Thaxted dates back from an early period in history, for on consulting the records we find that the Manor of Thaxted belonged to Eluric, the Saxon Thane. The church claimed annexation to the College of Clare in Suffolk during the time of Edward the Confessor. Also the road from Dunmow to Bartlow is said to date back to Roman times.

The growth of the village from its earliest times, as indicated by old surveys, has been most irregular, due in no way to any pre-conceived idea for the picturesque, but purely the outcome of practical necessities. This informality of treatment, combined with the architectural clothing of the various buildings, and assisted by long years of weathering, form the chief attributes which moulded and fashioned this unrivalled Essex hamlet.

Again, there is the satisfaction of knowing that modern developments have so far steered clear of Thaxted. Many of our ancient villages, which from the architectural and historical standpoint were priceless possessions, have within recent years been desecrated by the hands of the industrialists, and thus their old-world charm has disappeared for ever.

Surely there ought to be constituted a competent committee, represented mostly by architectural experts, whose duty would be to protect these priceless treasures against the ravages of the modern speculator, and so preserve the few remaining unspoilt villages for all time.

Thaxted lies a little more than a mile from the Great Eastern Railway station. It is a curious point why that company did not carry their line in closer juxtaposition to the village. Happily they did not, for the peace and serenity which has for so long reigned over Thaxted would have been for ever broken by the continual hissing of the "Iron Steed."

Thaxted is interesting from whatever position it is approached. From the Dunmow Road (see sketches) the prospect cannot but fail to impress the visitor, for dominating the view in the distance is the church, while in the middle distance the Guild Hall is conspicuous, made more so by its location at the termination of an island site, formed by the two converging roads. In the foreground picturesque grouping of inn, stores, and Georgian houses arrest the eye. An added interest is the material used for the roof covering, consisting mainly of thatch and tiles, which materially assists in giving that delightful note of the rural.

During the reign of Edward III. the armourers' and cutlers' industry, whose prosperity Thaxted depended upon, reached its zenith. A body of workers established themselves in the town at an early date, but it was in the above reign that a guild was founded, out of which emanated the Guild Hall, said to be the first in the country. This industry was carried on for a considerable period, and when armour became obsolete these men turned their hands to the manufacture of cutlery, an allied industry.

The Guild Hall dates from the reign of James I. It has long ceased to be used for its original purpose, i.e., the Guild Hall councils, and is now utilised for parish purposes; the old council chamber as a reading-room and the upper chamber for parish meetings. In 1911 the building was renovated, and the original timbers, which had been hidden by plaster work, were then exposed, thus expressing the true construction outwardly, a characteristic feature of timber structures of this period.

Generally speaking the domestic buildings indicate the influence of Georgian architecture very decidedly, but one discerns other influences in many of the façades, due to local tradition and customs. On closer examination many of the houses are indicative of an earlier date, probably fifteenth and sixteenth centuries, for, exhibited at the first-floor position of the outer walls, we find roof beam ends, carved corbels, and other roof motifs, suggesting the eaves termination of earlier buildings.

The church is situated on the left of Watling Street, and was originally dedicated to St. Lawrence, and later to Our Lady. The reversion to the latter title was no doubt due to the enlargement of the church by the Mortimer family towards the end of the fourteenth century. It was again changed to St. John the Baptist in the reign of Edward IV., when it was again re-named, remaining unchanged from that time to the present day.

The Perpendicular style of architecture predominates, but there are indications of work of an earlier period, namely, the Nave Arcade, which is unquestionably of the thirteenth-century period. St. Lawrence was a patron saint of the cutlers, and in all probability this portion of the fabric was dedicated to St. Lawrence. It was during this time that the village greatly prospered, thus accounting for the erection of a large portion of the fabric.

Originally an Anglo-Saxon and Norman church may have preceded the present one, but there are no foundations above the ground to make this authentic. The perpendicular part is a fine example of that style. The north porch is characteristic of the earlier phase of that period, very ornate in design. Over the doorway are two large panels, inscribed with the royal shields of arms of Edward IV., dating 1461, over these are two large windows, giving light to a room over the porch.

A spire, delicate and well-proportioned in design, forms a harmonious blending with the graceful tower lines, to which the angular buttresses to the latter, unique and ingeniously contrived, express an additional charm. The singular flying buttresses placed at the four angles are of wood construction, and assist in gradually leading the eye from the tower to the spire, without that sudden change of form, a defect often prevalent in the design of towers and spires.

The south elevation is marked by the south porch with its parvis. The main approach is by the south door, but it also contains a doorway facing east and west, surely an unusual practice with the Gothic designers. On the whole, the character of the work corresponds with that of the north porch, and may be dated as Early Perpendicular.

The interior of the church is not quite so happy as its outer form, yet it contains a certain interest, i.e., in the chancel arcade. The spandrels above the arches contain pierced quatrefoils, which has the tendency of appearing weak in effect (if not constructionally) and insufficient to carry the clerestory wall above.

An excellent example of oak carving is to be seen in the font cover, which commences with simple panelling, and terminates in a spire, ornately carved and full of vigour, dating back to the latter part of the fifteenth century. At the east end of the roof of the Lady Chapel is the celatura, which is said to be unique. The motive for use in olden days was not merely for the purpose of reverence, but as a protection against falling dust and insects. The emblems of the Chalice and Host form the enrichments to the panels, by the sacred monogram and the monogram of Our Lady. On the whole the fabric is certainly historically and architecturally interesting, and forms the focal point around which have clustered for centuries the homes of these hardy folk of old.

Perhaps one must not conclude without mentioning the present windmill, built in 1805. This prominent landmark, which is situated on high land outside the village, is rapidly falling into decay, due to the development of steam and electric power for driving purposes. It is to be regretted that these nature-driven machines of old cannot be preserved in some way, if not for actual working, for do they not stand as models indicating a definite stage in the advancement of mechanical ingenuity.

Mr. Arthur Ashton, A.R.I.B.A., P.A.S.I., of St. Annes-on-Sea, is the architect for a town hall which it is proposed to erect for Lytham—St. Annes. A site has been secured on the St. Anne's Promenade.

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London Art Galleries.

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An interesting exhibition on view for the month of December at the Gieves Gallery in Old Bond Street is that of the "Badges of H.M. Warships in 1921." There was always a natural desire for symbolic decoration of our ships which would help to preserve their individuality, and in the Tudor period devices on sails were used. Under Elizabeth ensigns had come into use, while figure-heads—frequently a lion in the case of warships—were continuously used during the seventeenth, eighteenth, and even the nineteenth centuries.

As figure-heads began to go out the use of badges came in, in a definite form shortly after the Crimean War; they were used on boats, on the uniform cap and on letter paper, and were met, I understand, as to the expense, generally by the ship's officers. Some of these devices, as we can see by the case shown in this exhibition, were of very poor artistic quality, and there seems to have been a certain amount of confusion and overlapping, until, towards the end of 1918, this whole question of ships' badges was raised officially. It was then pointed out that "from the artistic and heraldic points of view the majority of badges are deplorable; from that of developing *esprit-de-corps* among the ship's company it is impossible for the ship's people to attach any reverence to a badge which changes as often as the Commander, has no artistic merit nor historical significance, and sometimes no higher idea than an unworthy pun."

Though accepting this statement as correct in its main outlines, it is worth while to point out here that the genesis of some existing badges is often of interest: that of the "Benbow," shown here as "Sable, a harpy gold," is the crest of Admiral John Benbow (1653-1702), with his motto, "Usque ad finem"; that of the "Tribune"—a white unicorn, motto "Par droit d'armes"—recalls that the first ship of this name was captured by H.M.S. "Unicorn" from the French in 1796; while "Sterling," with its motto, "Good as gold," comes, I believe, originally from a mis-spelling of the name; and such names as "Coventry" (an elephant bearing a castle), "Birmingham," or "Cape Town" bear, naturally, the arms of the city from which comes their title. The new badges, as approved by the Admiralty, and carved by Messrs. Martyn, of London and Cheltenham, in plain wood, awaiting subsequent gilding and decoration, look very clean, finished, and attractive, and often show good design and carving. I noticed especially those of the "Alecto," with two vipers intertwined; of the "Concord," two hands clasped—motto, "Peace with Honour"; the "Coventry," above mentioned; and the "Centaur," as a "man-seahorse gold, blowing a shell trumpet." Less successful is "Cleopatra's head proper, crowned gold," which seems rather a libel in profile on the famous queen of Egypt, the tragic end of whose story does not entirely bear out the motto, "Invicta ut olim." These wooden medallions in relief will be cast, coloured, and completed at Chatham, and then issued to the ships; in themselves they form an interesting collection, which should be preserved by the Admiralty.

In the same room at Messrs. Gieves Art Gallery Mr. F. F. Ogilvie and Miss Hester Adlercorn are exhibitting: the former has some water-colour work from Egypt, among which I noted particularly "The Pyramids from Helwan," "The Flooded Temple, Philæ," and the "Hall of Columns, Philæ," where the light and shade is well handled, some of the other small studies being not very strong. Perhaps the cleverest painting of all is, however, a study of "Merrow Downs, Guildford," under deep snow; a somewhat chilling aspect of nature, which Hester Adlercorn seems to revel in on the next wall—"Col de Balme, Coming Snowstorm" and others,—while her group of flower studies "in Whites" in their frames of silver and black are attractive, but cold in their colour scheme throughout.

A young artist whose work has recently aroused public attention in London comes before the public in the lower room of the Gieves Gallery with two interesting portraits, painted quite recently, of the Prince of Wales. Mr. Douglas Chandor—whom I have called a young artist, as he cannot be more than twenty-five, if so much—has talent, and was, I should imagine, thoroughly in sympathy with his young sitter. Of these two portraits I incline to prefer the less finished pastel study, which seems to me more natural and spontaneous; in the larger three-quarter-length oil painting the colour scheme is dark, the pose a little stiff, and the hands not altogether satisfactory. Mr. Chandor has ability, and is finding his way. The limited amount of work shown here, including a few other portraits, is hardly sufficient as a criterion, but, judging from two or three landscape studies on the walls, notably the "Cannes," this artist seems to have a feeling for line and composition which might later bring him before us as a fine etcher.

Another December exhibition to be noticed for its subject interest has been that of Mr. David Wilson, under the title of "Impressions," at the Burlington Gallery. These are a remarkably clever series of drawings in line and wash of people—men and women—who are under the public eye in London at the present day. Politics, the Stage, Literature, the Church—all contribute their share, among the most successful being Mr. Gerald du Maurier; Lord Beaverbrook, with the legend "Success"; Mr. and Mrs. Asquith, in "The Paisley Shawl"; Lord Robert Cecil, an admirable likeness; Sir James Craig, the Prime Minister of Ulster, who represents so efficiently that North of Ireland from which the artist himself has come to us in London; Sir John Martin Harvey, as "Reresby the Rat," a character which he was playing at the Lyceum Theatre only last week; Father Bernard Vaughan, and Mr. Cunninghame Graham. This last fancy portrait is admirably imagined. The sitter, who, as I understand, is proud of tracing his ancestry back to the Stuarts, has turned King Charles I. from his horse in Trafalgar Square, and bestrides the rearing steed in a flamboyant attitude, while before the statue a "Jacobite" stands in humble admiration. Not less clever is his "Mr. Balfour in New York"; his Viscount Northcliffe, as "The Thunderer," perorating to the stars, with the earth at his feet; Sir Hall Caine, as "The Master of Man"; Mr. Arnold Bennett, combining "The Dream and Business."

But there is no real venom in these fancy figures, and it is noteworthy that, quite apart from their subjects, they are really excellent in design and placing. A clever effect is the "spattered" black in Lord Robert's coat and elsewhere. I rather believe this is done with a tooth-brush charged with Indian ink, after all the part not under treatment has been carefully screened off, and its result is a richness which pure black would not give. Mr. Wilson was at one time cartoonist to the "Daily Chronicle"; since then he has worked for the "Graphic," "Punch," and other illustrated weeklies.

The exhibition of hand-painted pottery this month by Alfred H. and Louise Powell at the Brook Street Art Gallery is worth noting to those numerous readers of THE ARCHITECT who are interested in internal decoration. The designs, in some of which I seemed to trace Persian influence, are remarkably good, and the use of black is very effective.

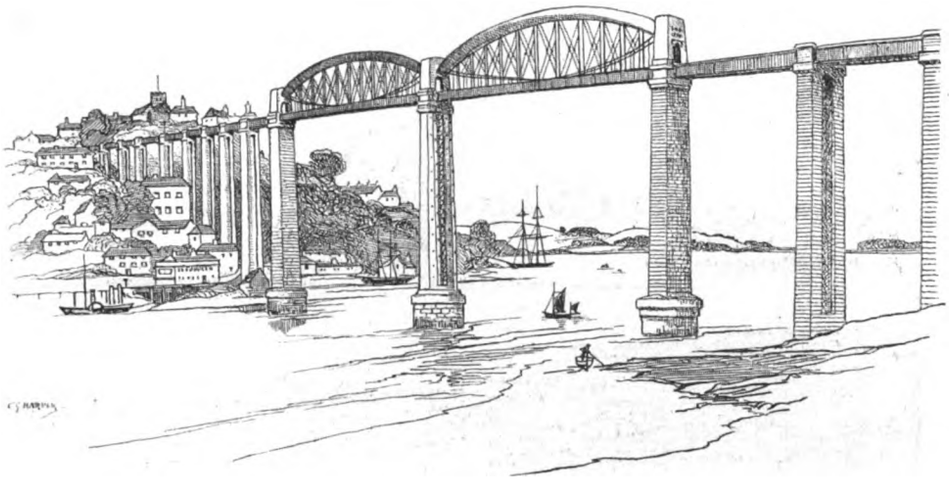
The exhibition has been so successful that it will be repeated next year. I understand that Mr. Powell is himself an architect, and that his wife inherits her taste, for her grandfather worked at pottery.

S. B.

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Bridges.—V.

By Charles G. Harper.



BRUNEL'S SALTASH BRIDGE.

(*Previous Articles*: *Sept.* 9, 23, *Oct.* 14, *Nov.* 11.)

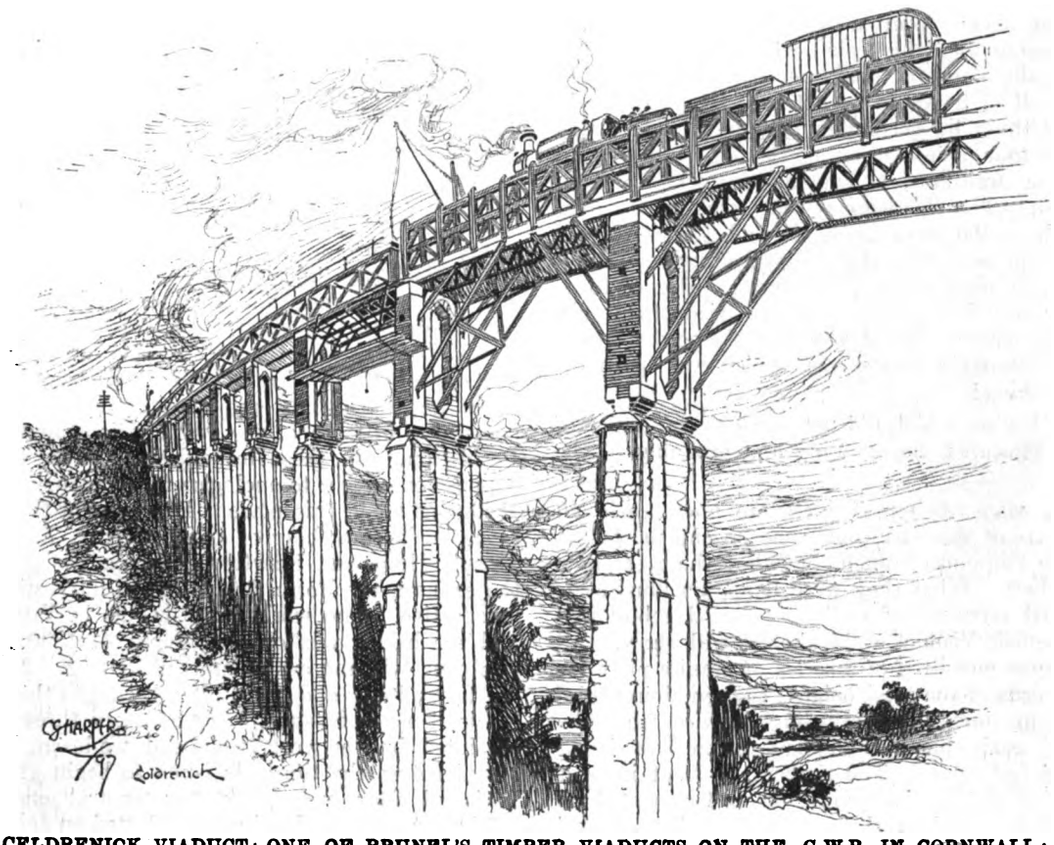
Some of Brunel's early adventures in bridge designing have been already narrated. It is convenient at this point to consider other bridge and viaduct works by this commanding genius, notably his Saltash Bridge and the Cornish half-timbered viaducts constructed for the railways now owned by the Great Western Railway Company. Brunel was met in Devon and Cornwall with peculiar problems in railway construction. It is a country traversed by many streams running southward in deep valleys. These the railways had to cross, often at a considerable height. Passing Ivybridge and a few other of these profound hollows in South Devon, there was then the problem of crossing the River Tamar from Devonport to Saltash, in Cornwall. Saltash is placed with exceeding picturesqueness on a height above the Cornish shore. It cannot see its own picturesqueness any more than a person with a fine Roman nose can see that ornament except by artificial aid. Oddly enough, although no one could style Saltash Bridge in itself beautiful in detail, this huge affair, largely of iron girders, by no means spoils the view. To some minds it confers even an added interest, and even beauty, when viewed from certain angles. It carries the railway in single track across that remarkable estuary at a height of 100 feet above the fairway. Saltash Bridge—no one ever dreams of styling it by its official title, the "Royal Albert Bridge"—has in all nineteen spans and is 2,240 feet in length; but its great spectacular feature is provided by the two central spans of 455 feet each. The principle of these is a combination of truss and suspension, the great bowed tubular iron trusses forming the necessary principle for suspending the chains and girders supporting the roadway. Twelve years were occupied in building, and the bridge was opened in September 1859. A story was told at that time of someone asking Brunel how long it would last.

"A hundred years," he replied.

"And then?"

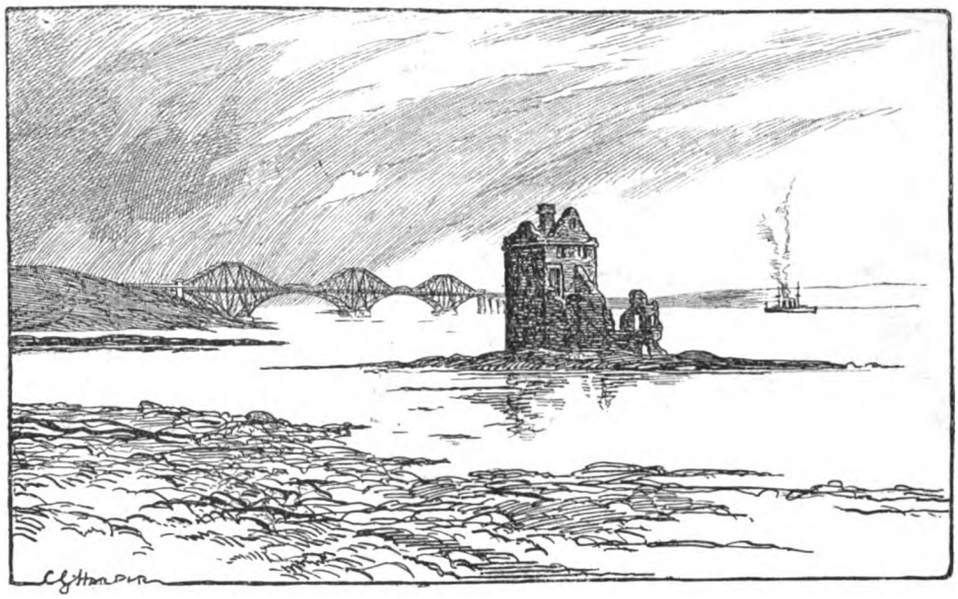
"Then it will be no longer needed."

Thus it seems we have yet thirty-eight years to await the verification of this remarkable prediction.



CELDRENICK VIADUCT: ONE OF BRUNEL'S TIMBER VIADUCTS ON THE G.W.R. IN CORNWALL: RECONSTRUCTION WORKS

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THE FORTH BRIDGE AND ROSYTH CASTLE.

There is a good deal more work in Saltash Bridge than meets the eye, the stone base of the central pier going down through seventy feet of water and a further twenty feet of sand and gravel to the solid rock. The cost of the Bridge is said to have been £230,000. In this general sketch of bridges there is scarcely the opportunity for detailing the interesting work of constructing Saltash Bridge; but for convenience of reference it may be said that a good account will be found in G. A. Sekon's "History of the Great Western Railway," which, however, has long been out of print.

We come now to the many viaducts built for the railways in Cornwall by Brunel. There are some seventy viaducts on the Great Western, between Saltash and Penzance. Most have been rebuilt in granite during the last twenty-five years, and they afford beautiful specimens of masonry; but the old romantic interest has gone with this rebuilding. Brunel's viaducts were hazardous-looking structures which had the interest alike of unusual design and the speculation—academic or instinct with personal apprehensions, according to whether you contemplated them from a safe distance, or were actually crossing them by train—when they would collapse. Actually none of them ever did, but there was a certain thrill of terror to be obtained by amateurs in that sort of thing by accompanying an official of this division on a tour of inspection and standing midway on one of these frail-looking contrivances while a train passed across. The elasticity of them was remarkable. You noted it as the train came on, and the springing back when it passed off, and the lateral sway was sometimes extremely disquieting to one not accustomed to it. An observer standing on one of these viaducts would notice it very acutely, but it was scarcely perceptible to travellers in the train themselves, which was, perhaps, an excellent thing!

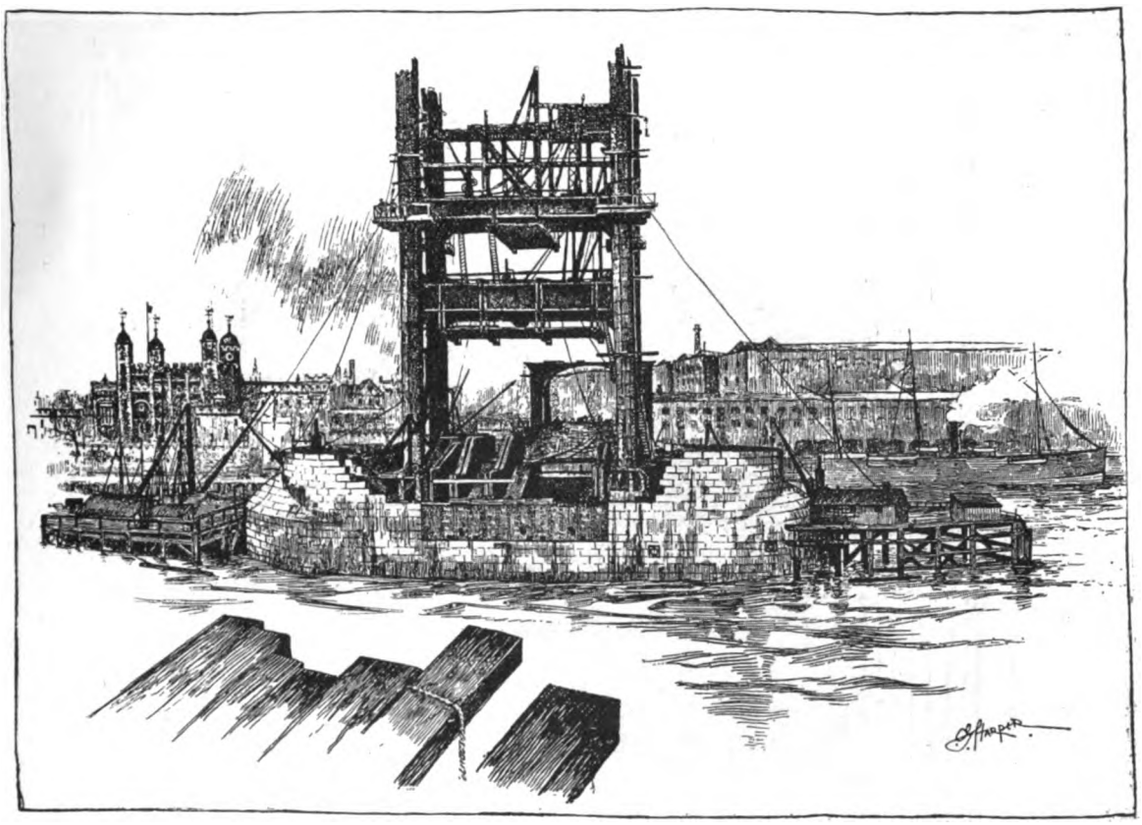
Another feature which did not come to the notice of train-passengers was the creaking and groaning of the timbers.

Brunel's extraordinary viaducts are now nearly all historic things of the past, but some specimens yet remain on the Falmouth branch, including the great Penwithers viaduct. What they were like, this illustration of the partial reconstruction (before actual rebuilding) of the Coldrenick Viaduct at Menheniot will show. All these structures consisted of a series of granite piers for about two-thirds of the total height; the remaining third constructed in timbering, spreading fanwise from the capstone of each pier; the piers themselves being generally 66 feet apart. The timbers, it is of interest to know, were of American oak. Their feet rested on the masonry in cast-iron shoes. Bolted through and stayed with a maze of iron bars, and in later years pickled in creosote, these timberings were not, in fact, so delicate as they looked. The Cornwall Railway was opened to Truro August 4, 1859, and Brunel's viaducts were scarcely interfered with until the policy of rebuilding was inaugurated by the rebuilding of the loftiest of them all—that of Moorswater, on the down side of Liskeard station. It is 800 feet in length and 150 feet in height. The new granite structure was opened for traffic February 26, 1881, after three years' building. The rebuilding of the series was not undertaken through any fear of the stability of the timber viaducts, but solely because of railway developments. The line had been in single track and was then to be doubled. At the same time, heavier engines and greater speed were required. Opportunity was also taken for straightening out the many sharp curves and reducing gradients.

The illustration of Coldrenick Viaduct displays a typical one of the series. It was made when the upper part of the piers was being rebuilt in blue brick, with steel girders being substituted for the timbers. It will be noted how irregular is the masonry and how casual are the set-offs.

Up to date, the giant Forth Bridge is the greatest engineering feat in bridge-building in this country. The Firth, or estuary of the Forth (the subject of Victor Hugo's amusing error in styling it "la première du quatrième"), is here a mile and a-quarter wide. No one can honestly style it other than hideous, wonderful though it be. Close at hand, viewed from South Queensferry, that vast mass of metal, rearing in three tremendous cantilevers, has a nightmare effect, not a little depressing to anyone who is not enthusiastic on the subject of engineering science. Personally, I bracket the Forth Bridge, the Crystal Palace, and the gigantic "Statue of Liberty" in New York harbour as the three most dreadful-looking and apocalyptic of sights; with something in them of the awful visions in the Book of Revelation. On these intimidating terms, therefore, I suppose one ought to apologise for introducing the Forth Bridge at all in this place. But even in this case, distance lends something of enchantment. Seen from St. Mary's Hope and Rosyth Castle, on the other side of the estuary, the Forth Bridge comes interestingly in the perspective. The works were begun in January 1883, and the bridge was opened March 4, 1890. The cost was over two and a-half million sterling. Maintenance is a heavy item, and it has often been said that the painting is "never finished." Once every three years it is repainted, but the work at one end, we learn, is not completed before the time has come to begin at the other. It is of four spans, the two central ones being of 1,170 feet each. The site was selected on account of the

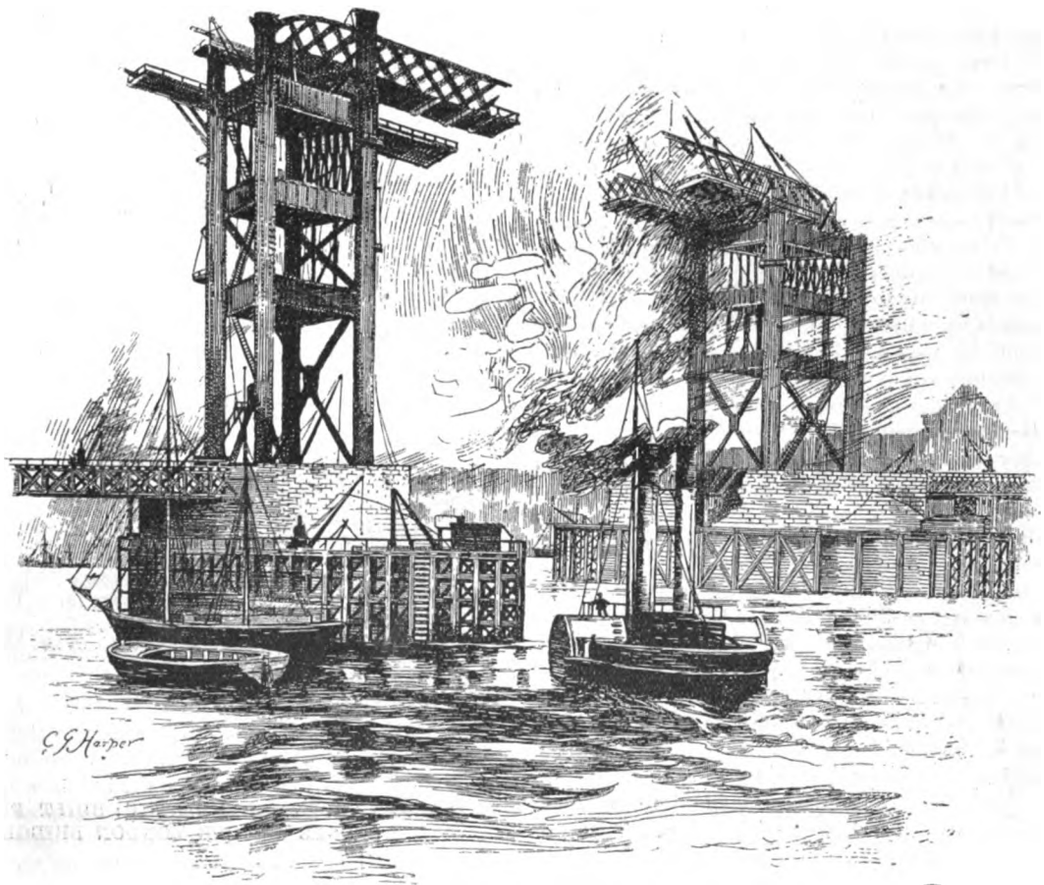
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CONSTRUCTION OF THE TOWER BRIDGE.—I.

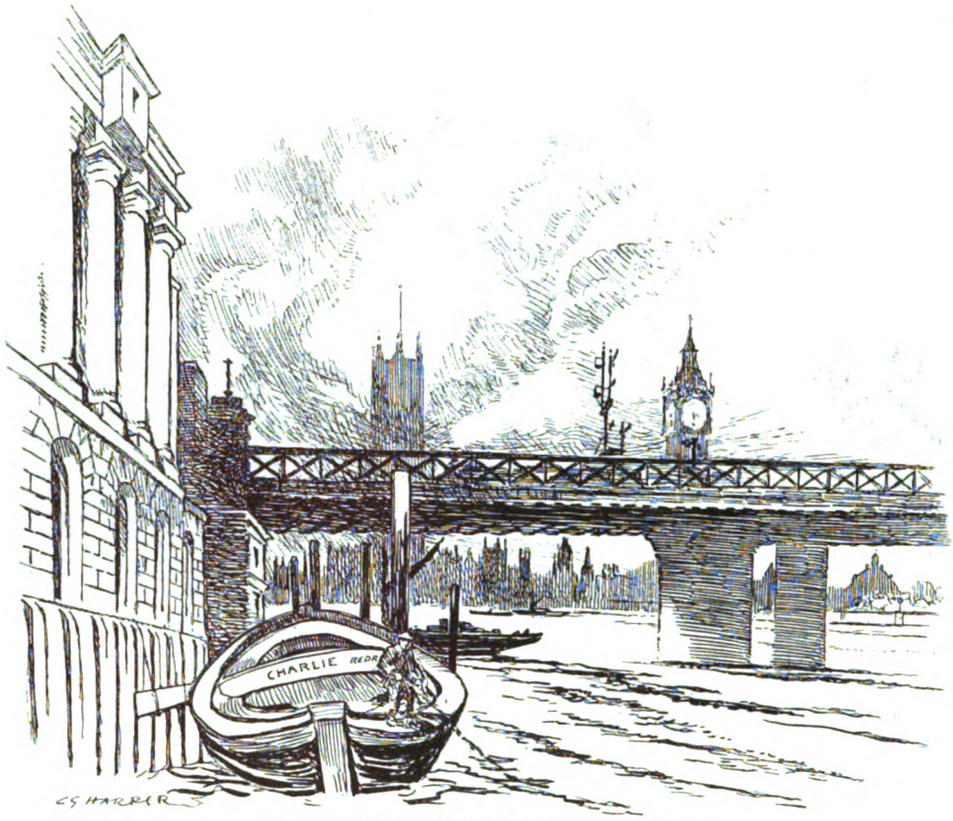
small island of Inchgarvie midway, which afforded considerable help. The fairway is 200 feet deep, and the roadway is 150 feet above high water. Since this drawing was made I understand that the situation of the semi-islanded ruin of Rosyth Castle has been somewhat qualified by alterations in connection with the new naval base of Rosyth; which site above the bridge has been greatly criticised. In times of war, it is held, any fleet assembled here could easily be bottled up by an enemy who had the luck and skill to blow up the bridge and obstruct the channel with its ruins.

I will conclude on an incidental note: a curious use which in 1834 was made of the stones of Old London Bridge. It is something of a topical note, too, because the mansion then built of those stones cannot much longer be suffered to remain where it is. It is the stately edifice known as Ingress Abbey, down beside the estuary of the Thames between Greenhithe and Northfleet. It was built for Alderman Harmer, one of the extinct race of attorneys, and at that time proprietor of the "Weekly Dispatch," and member of the Common Council of the City of London. He resigned his Alderman's gown in



CONSTRUCTION OF THE TOWER BRIDGE.—II.

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"HUNGERFORD BRIDGE," CHARING CROSS.

1840, and thus was never Lord Mayor. The occasion of that resignation was his proprietorship of the then ultra-radical newspaper already mentioned. He is referred to in the "Ingoldsby Legends," in Mr. Barney Maguire's account of the Coronation, in conjunction with another once well-known figure: "Alderman Harmer and that swate charmer Miss Angaby Coutts." Harmer died in 1853. The house and well-wooded park are alike menaced by the industrial development of that region, very largely in the way of huge wallpaper factories.

Fitly we may here give some mention of that other great engineering work, the Tower Bridge, whose iron and steel skeleton is now hidden from view, and perhaps forgotten by most people. From a set of engineering drawings made by me at the time of construction I select a view of the great iron and steel framework of the two main piers. It is nearly thirty years ago since the works were at this stage. This costly structure, involving about £1,000,000, was built out of the funds of Bridge House Estates, a trust which has been administered by the Corporation of the City of London for over 750 years; and it involved not one penny in rates nor contributions from any other source. Although the bascule principle by which the leaves of the roadway are lifted to admit the passage of vessels was considered to be abundantly necessary at the time when the Tower Bridge was designed, it seems probable that the occasions for the leaves being thus raised are fewer than originally they were, since a proportion of the Port of London shipping has since then used lower reaches of the river. For this reason, perhaps, the high-level roadway for pedestrians, designed to be reached by lifts, has long been disused; since the fewer occasions of raising the main roadway now give but little interruption to traffic. A feature certainly not contemplated by the designers of the bridge is the entertainment afforded to amused crowds, detained by the raising of the bascules, at the sight of some terrified dog trying to cross and finding the roadway slowly but inexorably rising against him.

The scale of this combined work of Horace Jones, the City of London architect, and of Sir John Wolfe Barry, engineer, is immense, and appears even more so when viewed together with the Tower of London. That inclusion is unfortunate for both. It seems a pity that the site for the Tower Bridge should not have been farther away from that historic fortress whose mediævalism it apes. But I confess, if not to a feeling of satisfaction with the Tower Bridge as a whole, to being vastly impressed by a sense of sublimity in the great arches of the two towers over the roadway. They touch a chord that reverberates to admiration; and it does not in the least belittle them to know that they are the merely ornamental disguise of a metal frame. This, to follow the trend of some schools of criticism, should be a shameful confession; but I will go even greater lengths. Intrinsically, Charing Cross railway bridge is indefensibly ugly, and there is much to be said for proposals that would make away with it, in favour of some noble architectural conception. But it is a foil: it sets off the view of Barry's (or, as some might say, Pugin's) towers of the Houses of Parliament in a way that no imposing bridge could do. Such a bridge would be a rival. And, after all, that view, as it exists, *is* London: workaday London, with all her littlenesses, her grandeurs, her Imperial breadth, her parochial interests, your London—and mine. How we hate her one day, are indifferent another, and love her the next! You will never make London, by whatever striving, like Rome or Athens in their classic guise. And, if you could, how unendurable she would be!



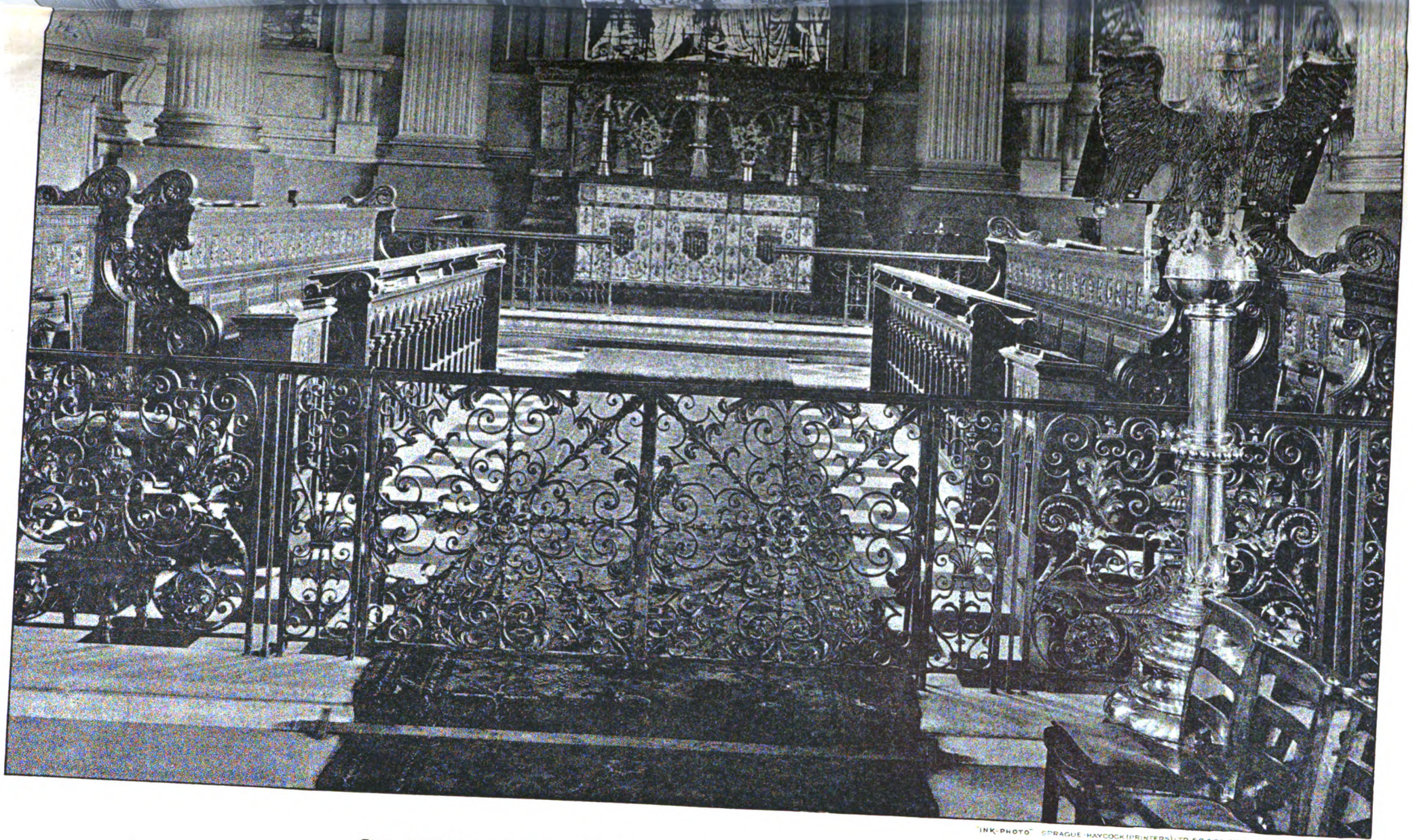
INGRESS ABBEY, GREENHITHE: BUILT FROM THE STONES OF OLD LONDON BRIDGE.

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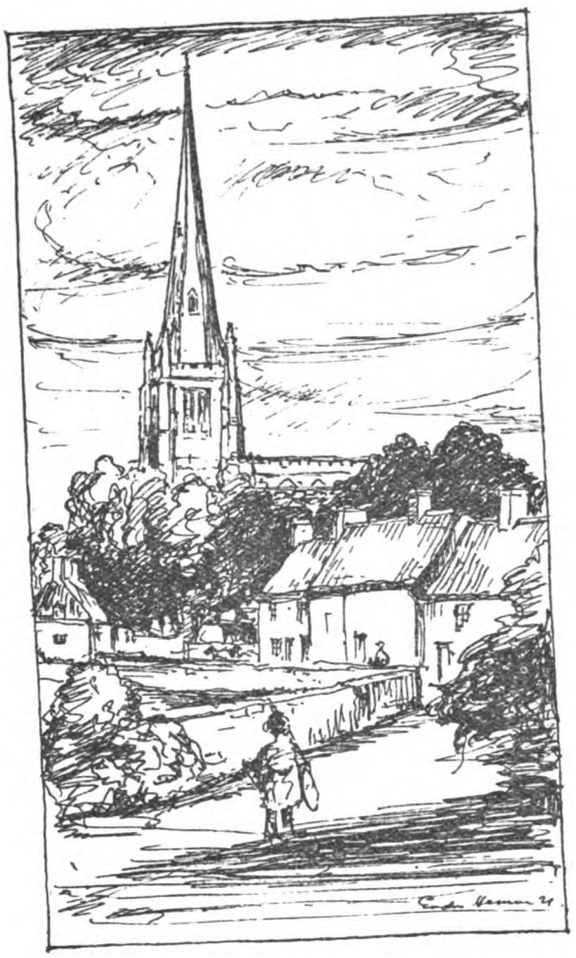
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THE CATHEDRAL CHURCH OF ST. PHILIP, BIRMINGHAM.—By THOMAS ARCHER, ARCHITECT.
VIEW OF CHOIR AND CHANCEL. WINDOWS BY SIR E. BURNE JONES, BART.

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THE CHURCH SPIRE FROM THE FIELDS.



VIEW OF VILLAGE FROM



THATCHED COTTAGES, THAXTED



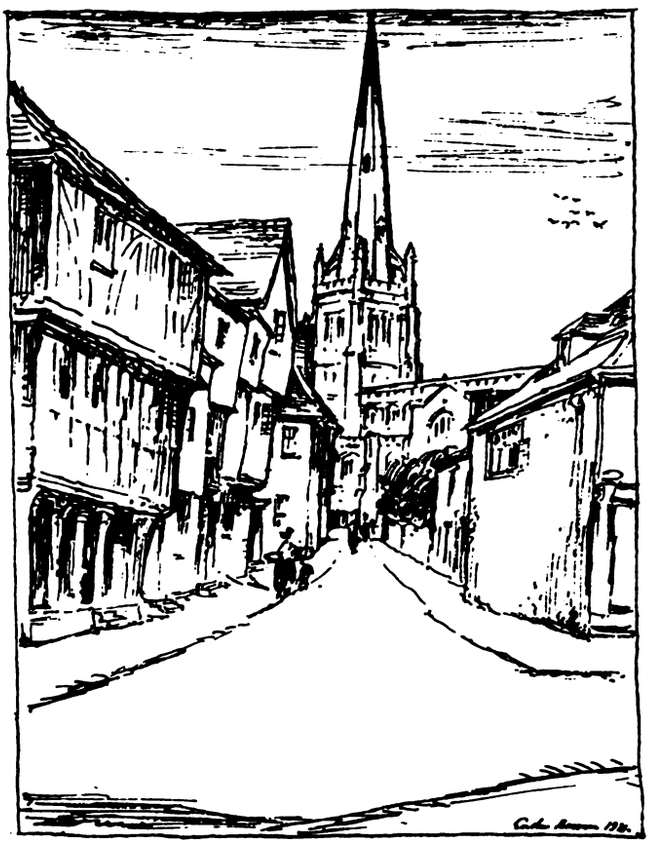
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SKETCHES OF



DUNMOW ROAD.



THE CHURCH FROM DUNMOW ROAD.



ALL, THAXTED.



NEWBIGGIN STEET, THAXTED.

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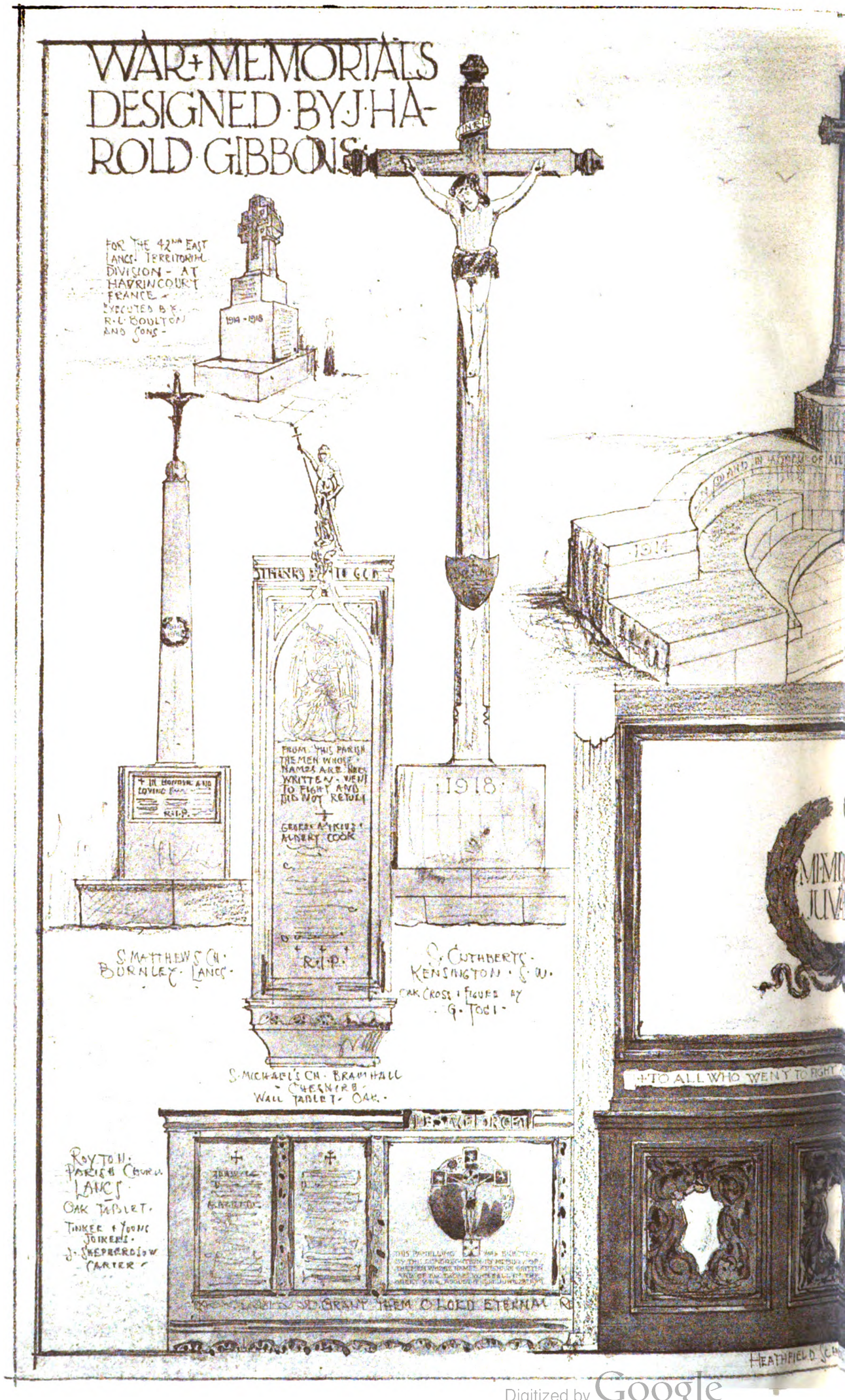
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THAXTED, ESSEX.

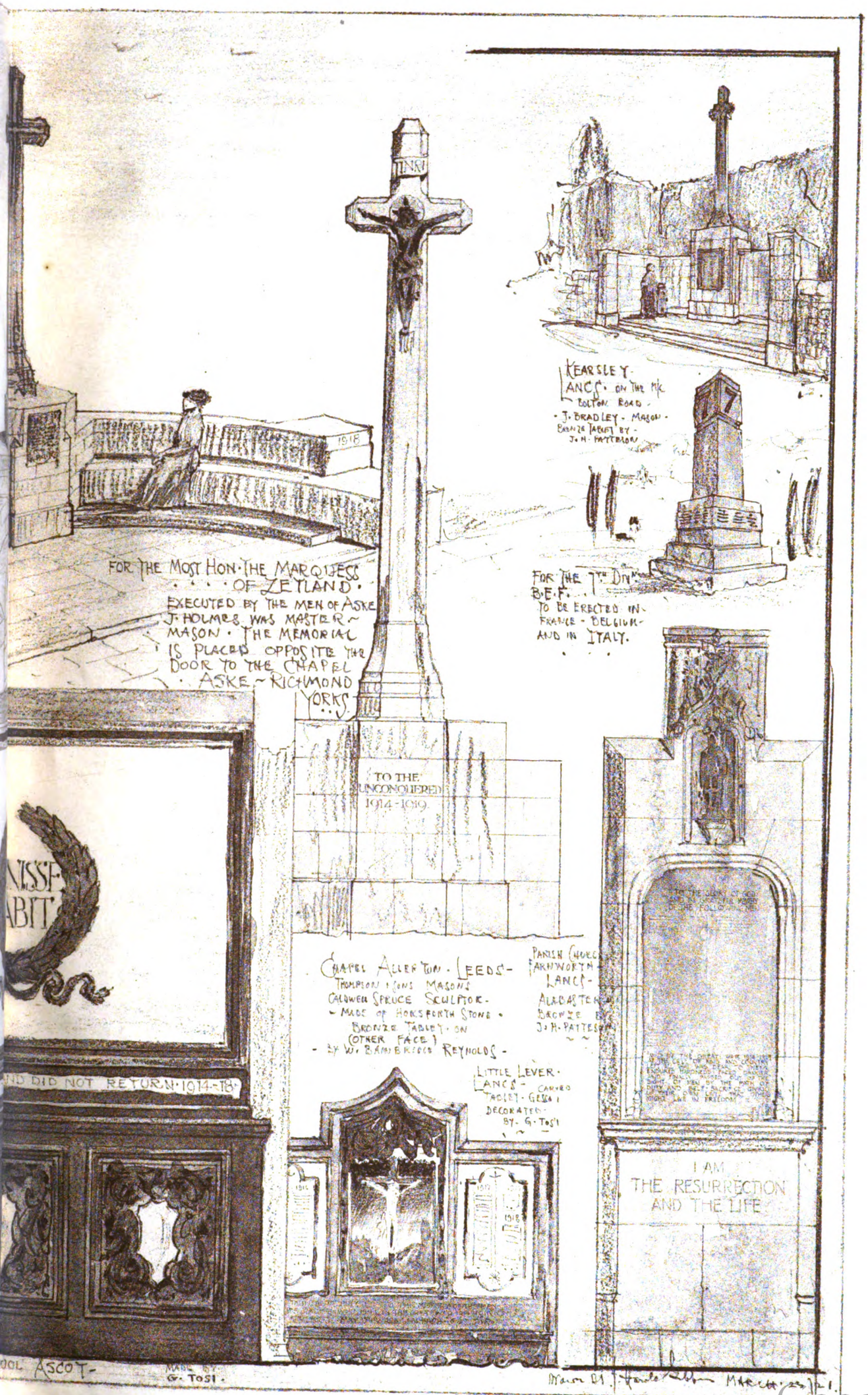
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WAR MEMORIALS DESIGNED BY J. HAROLD GIBBONS



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Sandals, Shoes, and Boots.

By Henry Hyams.

"What do you think of it?" asked the bearded man in the sandals, pushing his plans along the table.

The pale man in brown shoes looked at the drawings but made no reply.

"Rather good, isn't it?" continued the man in sandals as he leaned back comfortably in his chair. Then he took out his tobacco pouch, and with his long, sun-browned fingers leisurely filled up his pipe.

"Some baccy?" he asked, offering the pouch to his companion.

Still the man in brown shoes made no reply. It was easy to see that he was getting angry.

"What! fed up over the comp.?" asked the man in sandals.

The pale man in brown shoes got angrier, shrugged his shoulders, stood up and took a few paces backward and forward. Suddenly he turned on his sandaled companion, and said:

"Good Heavens, man! think what you are doing, designing along these lines; it is even worse than your slangy language. You defy all tradition. What style do you call it? The columns have no bases, nor caps, but only a little ornament near the middle of the shaft. And so it is with the rest of the design. Just where the eye naturally from habit looks for a little ornament, there it is lacking. You make yourself very ridiculous, inventing this sort of thing."

The man in sandals leaned back in his chair and smiled, as though the other had just paid him a great compliment. His long sun-browned fingers pointed the stem of his pipe at the man in shoes, as he quoted:

"'The life so short, the craft so long to learn.' However, I'm not lazy, but I want to economise. I must simplify. After all, I'm doing with our design language only what we all do with our spoken language."

Shoes was silent.

"Remember what Emerson says," continued Sandals, "Art depends upon necessity, upon simplicity, upon utility; everything in art should justify its existence by being useful, by having some meaning. We must progress. Remember, too, the words of Michel Bréal: 'Each onward step of a language is the work first of an individual, then of a more or less large majority.'* Art is a language too."

"Yes, and your art, like your English, is slangy. You think yourself one of those privileged individuals in art and language, I suppose?"

"Well, the world moves too slowly for me; we must press forward. You are wrong, however, in calling me a privileged individual. As Bréal says,* 'We all work more or less at the vocabulary of the future, whether we are scholars or unlettered, writers or artists, men of society or men of the people. Children have a part in it which is by no means small: as they take up the language at the point to which the preceding generations have brought it, they generally are ten or twenty years in advance of their parents.' So it is with the rest of art: we all influence the art of our age."

"I don't agree with all this talk of progress," said Shoes. "The present art is fine and splendid. You have the abominable habit of using slang, just as you use curious and new forms in ornament. You do this because you think it clever, and you wish to be noticed for your wit and your dexterity in art."

"Not at all. I use them because they seem to me fitting and in the spirit of progress. I use my own original faculties in my own original way. No one is an artist unless he does this. You call my language and art slangy; but what is slang? The worst that you can say against it is that it is a kind of vagabond language lying just outside the ordinary forms of expression: an island just off the mainland. Yet for me it is much more; it is the life force in expression: it is the only really living language, for all progress depends upon it."

"The only living language!" cried Shoes sarcastically.

"Yes," replied the other quickly, waving his pipe to his words. "Is not every new expression, whether for ears or for eyes, in word or in design, at first named slang or newfangled? Is not every new metaphor called slang? Every shortening of a word slang?

"Give examples," said Shoes, stung by the confident tone of Sandals.

"Take 'propaganda.' There you have a whole phrase from Latin through Italian shortened into one word. Another example is the Latin word 'episcopus' shortened in the national languages into: German, bischof; French, evêque; Spanish, obispo; Portuguese, bispo; Danish, bisp, and so on. Languages as they evolve become simpler and simpler in word and in grammar. The architect's art is a language too."

Shoes was silent, and after a little, Sandals continued:

"Was not the person who first called a biscuit 'twice-cooked' accused of slang?"

"Twice-cooked?"

"Yes, 'bescoit' from 'bis-coctus.' Thus slang does give growth to a language. And so it is with our art. The old elaboration of design and ornament is gone for ever; there is now no longer any need for it. We say what we want to say with less effort; we find new beauties in subtler ways."

At this moment there entered the room a fat man in tight boots.

"Hello, Goth! Demobbed and free once more," said Sandals. "Still keen on the medieval stuff?"

"I am more convinced than ever," said Boots, "that it is the only style worth troubling about. To-day I have been reading Evans's 'Animal Symbolism in Ecclesiastical Architecture,' and a book on the symbolism in heraldry, and I tell you, the old ornament simply teems with meaning. In fact, it was the books from which everyone read."

"Well, what about it?" asked Sandals.

"Simply this. We must never use ornament without an intention of meaning. We must educate everyone to understand these old meanings so that we shall be able fittingly to use this old ornament in our work to-day."

"I agree that we should never use meaningless ornament," said Sandals, "but the rest of what you say won't do, for the old symbols nearly always had many meanings. How are we to know whether a lion symbolises the Devil or Christ, the resurrection or fortitude, or something else?"

"That will depend on the surroundings, and so on," explained Boots.

"But how will you manage about our captains of industry?" interrupted Shoes. "They grab these symbols to advertise their whiskey and their quack medicines. Nothing in that way is sacred to them; they have their 'Angel' beer-house, and tobaccos named after saints."

"We will educate them," explained Boots.

"No, it won't do," said Sandals. "The meanings of symbols evolve, like everything else. 'Angel' at first meant a messenger, then we used the word for a coin, later for a beer-house, and now it is the name of railway stations and halts for 'buses, at least for Londoners."

"I see many symbols around me that are being used, and I shall use them too," said Shoes.

"Yes," agreed Sandals, "we are creating symbols. The nations' flags are one example, and the numerous badges. Our symbols are bound up with our literature, a common figure of speech or a well-known poetical expression naturally creates its symbol for the eye. Thus one might say that the poets are the greatest creators of symbols for the decorative artist. Many of the old Greek and Roman symbols seem to have escaped the captains of industry. In the east, too, there are hundreds of great decorative value. A most successful modern symbol is that of the Underground Railway; it speaks from a distance and tells its own tale."

* "Semantics"—pp. 267, 268.

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"Are there any other successful modern symbols?" asked Shoes.

"Yes," said Sandals, "many. Curiously enough the most successful of all modern symbols seems to have originated by chance, according to a Polish doctor. I mean that symbol which a foreigner often seeks in a polyglot company. It is a symbol to which the words of Tagore might be applied:

'Thou hast made me known to friends whom I knew not.
Thou has given me seats in homes not my own.
Thou hast brought the distant near, and made a brother of the stranger.'"

"What symbol is that?" asked Boots and Shoes together.

"The green star of the Esperantists," said Sandals.

"How interesting," said Boots. "Guillim said of this five-pointed star that it is a falling or fallen star, not supposed to be fallen from its high estate, but to denote some divine quality bestowed from above, whereby men shine in virtue, learning, and works of piety like bright stars on the earth."

"Yes," agreed Sandals, "it is a fitting emblem for an international language. I have been alone in Continental cities, and I know what it is to look at the passers-by to see whether they wear the green star as a badge. I know, too, the delight of conversing with foreigners on an equal footing that no national language could give in a polyglot company."

"You see, we really must go back to the old symbols for our ornament, after all," said Boots.

"Partly, perhaps," said Sandals, "but the ornament of the future will not be meaningless; there will be no Lamb's Tails, no swags no half-figures with acanthus foliage, no Tudor leaves nor egg-and-tongue, and so on."

"Study medieval art, I say," said Boots.

"Design in a sane modern classic style and use our ornament as eminent architects of to-day do," said Shoes.

"No, no," said Sandals, "forget the past and the hideous present. We must press on, and if we remember simplicity, and utility, beauty will come of itself."

Royal Institute of British Architects.

A special general meeting of the Royal Institute was held on Thursday, December 22, for the purpose of selecting by ballot three members to conduct negotiations with the Ministry of Health concerning architects' fees for housing schemes. Professor S. D. Adshead, M.A., Vice-President, occupied the chair.

At a special general meeting held on November 28 (which was reported in THE ARCHITECT of December 2) it had been decided that three members should wait upon the Ministry with a view to the amendment and re-drafting of the terms of the engagement of architects in connection with housing. The following six names were referred to the Practice Standing Committee with a view to the selection of three, viz.: Messrs. W. R. Davidge, Herbert A. Welch, Francis Jones, Sydney Perks, William Woodward, H. T. Buckland, and Courtenay Crickmer.

The Practice Standing Committee submitted the following six names to the special general meeting held on the 23rd inst.: Mr. E. G. Allen, F.R.I.B.A., Henry V. Ashley, F.R.I.B.A., Mr. H. T. Buckland, F.R.I.B.A., Mr. W. R. Davidge, F.R.I.B.A., Mr. Francis Jones, F.R.I.B.A., and Mr. Herbert A. Welch, A.R.I.B.A. A letter, however, was read from Mr. Davidge declining the nomination, on the ground that he believed he could do more useful work by remaining outside.

A letter was read from Mr. J. Harold Kennard, in which he drew attention to the fact that only thirty-two members were present at the meeting on November 28, whereas under the by-laws there must be a minimum of forty members. Therefore the business then transacted was, he contended, null and void.

The Chairman ruled that the previous meeting had been in order on the ground that no reliable record had been made of the attendance.

Mr. W. W. Scott-Moncrieff and Mr. A. Welford were proposed and appointed to act as scrutineers.

After the voting papers had been distributed and collected, Mr. Kennard demanded a count of members present. It was found there were thirty-five. But the Chairman ruled the meeting was in order, as some members, after handing in their papers, had left the room. Mr. Kennard protested there had never been forty present, and suggested that counsel's opinion ought to be taken. The Chairman remarked that the count had not been asked for soon enough, and, further, that Mr. Kennard's action was purely obstructive.

Mr. Geoffrey Lucas supported the Chairman, and urged that the business should be proceeded with, lest yet more valuable time was lost before making an endeavour to arrive at an understanding with the Ministry. The same view was taken by Mr. D. Barclay Niven.

The scrutineers then reported the following: Herbert A. Welch (34 votes), H. T. Buckland (24), Henry V. Ashley (17), Francis Jones (17), E. G. Allen (11). As Mr. Ashley and Mr. Jones had tied, a further ballot was taken as to which of them would act as the third member; Mr. Francis Jones was ultimately elected by a majority of 7.

The meeting was then declared terminated.

The "Architect" Fifty Years Ago.

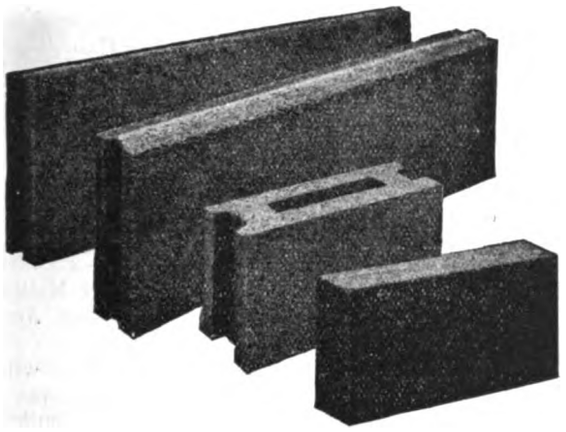
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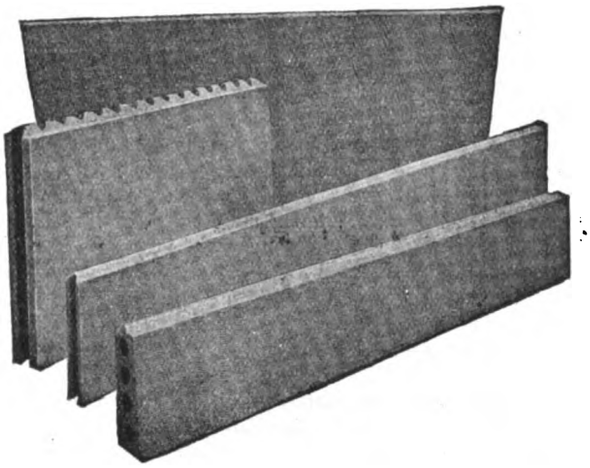
PUBLIC WORKS IN PARIS.

THE Parisian Municipality is now bestirring itself to repair the damage done during the German siege and under the disastrous reign of the Commune, and private incorporations are following its example. The work of restoring the Mairie of the 15th Arrondissement will be begun immediately. This building, which was one of the most ancient in Paris, is almost a ruin. It is proposed to strengthen the walls, and to raise the building an additional storey, at an expenditure of 40,000 francs. The rebuilding of the Palace of Justice will occupy three years, and will cost 6,000,000 francs. The works of the new College Chaptal have been resumed, and will be prosecuted with vigour until their completion. The other scholastic buildings appertaining to the City of Paris, whether in course of execution or simply projected, will also be rapidly pushed forward. The funds requisite for the completion of the synagogues in the Rue de la Victoire and the Place Royale have been voted by the Municipal Council, as well as the money necessary for the finishing of seven churches already begun, and for the most part in a very advanced state. The Chatelet Theatre was fortunately but little damaged by the fire. Some little damage was done on the Saint-Opportune side, but it was very trifling, and is now being made good. The same, unfortunately, cannot be said of the Lyrique Theatre, of which the four walls alone remain, and even they are injured. No steps have yet been taken to rebuild it, and the City authorities are little disposed, considering the state of their finances, to spend a large sum in restoring it. They would much rather sell it; and it is extremely probable that if a purchaser does not come forward, the Théâtre Lyrique will be pulled down, and the site disposed of. The work of repairing the church of St. Eustache is progressing rapidly. The Municipal Council has voted the sum of 150,000 francs for its restoration, and a further sum will be required to carry out the renovation of the interior. The church of Saint Sulpice suffered greatly during the Prussian bombardment, having been struck by no fewer than five shells. The Council have granted 12 000 francs for its repair, an amount totally inadequate to provide even for works of the most pressing necessity. M. Ginain is the architect employed to carry out the restoration. It appears that it has been decided that the Palace of the Conseil d'Etat shall not be rebuilt, at least on its present site—thus speaks a popular rumour. The workmen have begun to restore the bas-relief of David, which adorns the pediment of the Pantheon, and which was struck by numerous projectiles when Paris was taken by the regular army. The bas-reliefs of Nanteuil which decorate the portico will also be repaired.

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The Society of Architects.

The following Notes are from the Minutes:

Annual Dinner.—The annual dinner will take place at the Princes Restaurant on Wednesday, February 22, 1922. It will be open to members and visitors, including ladies, and the tickets will be 12s. 6d. each, exclusive of wines, &c.

Assistant Secretary.—Mr. C. A. Barman, of London, has been appointed assistant secretary of the Society. Mr. Barman was a student of the Liverpool University School of Architecture, and since then has gained experience as assistant to several leading London architects; his last engagement being with Sir Edwin Lutyens, R.A.

Art and Literature Committee.—Mr. Percy B. Tubbs has been reappointed chairman of this Committee. The Committee invites the co-operation of members in reviewing books, and will welcome donations of new or second-hand books to the library and contributions to the Library Fund. The re-cataloguing of the library has been completed, and the question of the issue of a revised catalogue is in hand.

Examination Committee.—Mr. L. Sylvester Sullivan has been reappointed chairman and Mr. Howard W. Robertson vice-chairman of this Committee. The examiners' reports on the two membership examinations held in April and October 1921 under the new conditions show that out of the thirty candidates who completed the test ten satisfied the examiners. Three candidates gained certificates of merit and two certificates of honour, one of the holders of which received also a special award of twenty-five guineas as the best candidate of the year. The conditions relating to the Society's design and other competitions are under revision.

Practice Committee.—Mr. Thomas Wallis has been appointed chairman and Major C. F. Skipper vice-chairman of this Committee. The report of the Scale of Charges Sub-Committee on their meeting of November 30 with representatives of the R.I.B.A. was received. Certain points raised by the Society, relating principally to bringing similar scales of other professional bodies and Government Departments into line with the architects' scale, have been discussed, but it has not been thought desirable to amend the scale at present. The question of housing fees, being a separate matter, has not been discussed in this connection. An invitation from the R.I.B.A. to appoint representatives to confer on the subject of the regulations of architectural competitions was accepted, and Messrs. Thomas Wallis, H. M. Robertson, the Secretary, and C. McArthur Butler were appointed to attend the conference.

Finance Committee.—Mr. George H. Paine has been appointed chairman of this committee. The auditors' report on the finances for the year ended October 31, 1921, was received.

Unification and Registration.—A report was received from the Hon. Secretary of the Unification Committee dated November 17, outlining the course of events since the last official reports had been published. It appeared from the present report that there was a possibility of the resumption of negotiations between the Conditions of Membership Committee and representatives of the Society in the near future.

Building Trades Parliament.—Arising out of the report of the November quarterly meeting of the Industrial Council and the report of certain delegates of the Society who had been in conference with representatives of the Industrial Council on the subject, it was decided to reduce the representation of the Society from four delegates to one, as from June 1922.

National Building Code.—From the report of the Society's delegates present at the conference on November 21 it appeared that certain resolutions of the conference had now been accepted by all constituent bodies, and that the President of the Society (Sir Charles T. Ruthen) had been appointed to represent the Society in carrying proposals further in approaching the Government on certain aspects of the case.

Annual General Meeting.—It was decided to hold the annual general meeting of the Society on January 12, 1922, at 8 p.m., to receive the Council's annual report and the auditors' statement of accounts, the meeting to be followed by a discussion to be opened by the President (Sir Charles T. Ruthen) on the question of "The Cost of Building," with the object of giving members of the Society an opportunity of expressing their views on the subject.

Building Trades Exhibition, 1922.—It was decided to co-operate with the arrangements for the Architects' Welcome Club at Olympia during the Building Exhibition in April 1922.

Birmingham Architectural Association.

That the English architect of to-day is necessarily a dictator of taste, was a point made by Professor C. H Reilly, of the School of Architecture, Liverpool University, in a critical paper on "Architects and National Taste," which he read before the Birmingham Architectural Association on Friday, December 16.

In the ages of faith which extended almost down to the time of our parents, the lecturer said there was no doubt in men's minds as to the style in which a building was to be erected. With the industrial revolution, however, there rose to power and place, especially in the North of England, a mass of people who were not educated in anything except the making of money. To such people the restraints which any sort of style imposed were unknown. In their ignorance they felt free to exercise any whim or fancy they cared to pay for, and, with the increasing power of money, architects were found ready to carry out their commands. There was no safeguard against the importation of any exotic idea from overseas or the revival of any past style, however inappropriate. In these days a point has been reached when the fact that a new bank, library, or town hall is to be built in one of our country towns appears as a real danger to the town, so little confidence have we that it will not be an eyesore.

With no public taste to control the architect, and with clients who were satisfied with whatever was put before them, provided the architect had a reputation for honesty and the right initials after his name, obviously the whole onus rested with the architect.

He nowadays was the director of taste. His responsibility to the community was greater than it had ever been, because within the conditions of expense at his disposal, he was to-day a practical autocrat. It was extremely rare to find a client with any definite ideas as to what he wanted in the matter of style. If he asked for Tudor, he would probably be equally pleased with some modern version of Georgian. "I know of a case," added Professor Reilly, "of a well-known modern architect and a noble client, where the latter asked for a Jacobean house and received a Pompeiian one, and was delighted with it." The position of the architect to-day, if he has any civic conscience, was one to tremble at. In his hands alone lay the form, features, and expression of our modern towns as well as the power of preserving or destroying the character of our old ones.

Turning to the question of how the modern architect has fulfilled his trust, Professor Reilly made some interesting comparisons with contemporary architectural work in America. Perhaps it was due to her size, perhaps to the multiplicity of races that went to make up her common stock, that America did not seem to be swept, as our country had been, by fashions set by individual contemporary architects. There was nothing in America to correspond with the case of Norman Shaw in this country. Norman Shaw was indirectly responsible for more suburban ugliness and ostentation, for the breaking up of more orderly architecture and the replacing of it by coarsely-conceived and coarsely-executed building than any influence since the German invasion in Elizabethan times. American architecture had been in the last thirty years less self-supporting, less sufficient, and less insular than our own. The American architect deliberately sought his inspiration in the work of the

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Italian, French, and Spanish Renaissance, and not in any popular version of them that an individual architect might have brought about. He had his library of authorities, where British architects too often had been content with volumes of plates from the technical papers. The result was a much purer and more stable architecture.

The American architects' problems were so different from those of the old world that he was forced to think and invent. In architecture it was we who spoke the slang, not the Americans. One had no fear that Fifth Avenue would at any moment be spoilt by a glazed terra-cotta building, with grotesque German detail; yet who could say the same of Oxford Street or the Strand, or any other leading London thoroughfare? In America the architect was apparently just as much a dictator of taste as in England, but there he appeared to realise his responsibilities more clearly.

At the conclusion of the lecture, which was illustrated with lantern slides and photographs, Mr. William Haywood, F.R.I.B.A., proposed a vote of thanks to Professor Reilly, which was seconded by Mr. A. T. Butler, F.R.I.B.A., and carried unanimously.

Correspondence.

To the Editor of THE ARCHITECT.

SIR, Could you kindly give me the names of authorities, sanitary associations, individuals (or books) who have advocated the omission or pointed out the absurdity of providing plumber's traps on the short, open-ended waste pipes (perhaps just through a wall) from sinks, lavatories, baths, &c.?

In cases where these waste pipes are only 3 or 4 feet long, it does seem to be worse than useless to instal such an obstruction—really a miniature cess-pit—on their length, to cut off perhaps 2 feet of such pipe.—Yours, &c.,

ENQUIRER.

General.

It is proposed to erect a cinema at Goldthorpe, near Rotherham. The site is in High Street. The architect is Mr. J. Williams, Morton, Derbyshire.

Mr. Arthur Brown, city engineer, of Nottingham, has resigned. He has been fifty-four years in the service of the Nottingham Corporation.

The Birmingham Baths Committee has decided to proceed at once with preliminary work for the provision of open-air baths at Harborne and King's Heath at a probable cost of £25,000 each.

The Rotherham Corporation architect asked for instructions as to purchasing German-made goods for the construction of houses, and the Housing Committee recommend that German goods should not be purchased at the present time.

Messrs. George Hubbard & Son, F.R.I.B.A., architects and surveyors, of 112 Fenchurch Street, London, E.C. 3, request us to announce that from and after this date their address will be 45 New Bond Street, W., and their telephone number Mayfair 7016.

At a recent meeting of the Committee of the Incorporated Church Building Society, held at the Society's House, 7 Dean's Yard, Westminster Abbey, it was decided to appoint Mr. Clifton Kelway as Secretary of the Society, in succession to the late Rev. T. T. Norgate.

The R.I.B.A. have published a short pamphlet containing advice to candidates for the Royal Institute Examinations, together with a list of books recommended to those who are studying architecture. This pamphlet contains some extremely valuable information and it may be obtained free on application to the R.I.B.A., 9 Conduit Street, W. 1.

Mr. A. W. Brightmore, A.M.I.C.E., inspector under the Ministry of Health, recently held an inquiry at Jarrow Town Ha[illegible]to an application by the Town Council for sanction t[illegible]orrow £60,430 for the construction of a new sewer from Moukton along the valley of the River Don, with an outfall to the River Tyne. Mr. J. Scott Weir, borough surveyor, explained the scheme.

The Wesleyan Chapel Committee, at a recent meeting in Manchester, passed two important building schemes. One is at Fisher Street, Carlisle, where a new chapel is to be erected costing £20,000, to seat 1,000 persons. The other scheme is the erection of a Central Hall at Tonypandy, South Wales, to seat 1,000, and to cost £23,000. Of this £13,000 has already been promised.

The Berkshire War Memorial Committee have decided to push on with their approved scheme for the erection of a bronze figure of Victory (designed by the late Professor J. Harvard Thomas, London University, in collaboration with Mr. Mervyn E. Macartney, F.R.I.B.A.), to be placed in the entrance to the Forbury Gardens, Reading. The cost is estimated at £8,000.

Without discussion, the Bradford City Council have agreed to applications for Provisional Orders authorising the borrowing of the following sums: £2,120,000 for waterworks purposes; £450,000, and such further sums as the Minister of Transport may sanction, for tramway purposes; £100,000 for markets, fairs, and slaughterhouses; and £10,000 for improvements at the Conditioning House.

An Order in Council dated December 13, 1921, sanctioning the draft by-laws submitted to them for approval by the Surveyors' Institution has been made by the Lords of His Majesty's Most Honourable Privy Council. The new by-laws will, therefore, come into operation with the New Year. The amalgamation with the Quantity Surveyors' Association will be completed as soon as the meetings necessary to wind up that society in its present form have been held.

The Surrey Education Committee, at their last meeting, were informed that revised plans have been submitted to the Board of Education for a secondary school for girls at Wimbledon, to provide accommodation for 405, at a cost of £28,500. This expenditure has been approved by the Committee. Approval is also being sought for the erection of two central schools at Mitcham to accommodate 320 pupils each.

The Royal Institute are publishing periodically the questions set at past Intermediate and Final (or Special) examinations. Those questions set at the examinations held in June 1921 are now ready, and copies may be obtained at the Royal Institute, price 1s. 6d., exclusive of postage. Past questions are always of the greatest possible value to candidates who intend sitting for examinations; they are excellent guides as to the lines upon which candidates should proceed in preparing themselves.

An inquiry was held in the Shire Hall, Durham, last week, into the application of the Durham County Water Board to borrow from the Ministry of Health £547,000 for work connected with water supply. Mr. Cecil H. Roberts, M.I.C.E., presided. The £547,000 was made up as follows: £29,500 for the purchase of land and easements; £70,000 for the construction of the Stanhope tunnel; £81,500 for the construction of the Muggleswick tunnel; £330,000 for pipe lines and intake; £16,000 per annum for distributory pipes and meters; and £20,000 for working balance.

The Manchester, Salford, and District Building Trades Employers' Association gave a dinner on the 14th to honour Mr. Henry Mathews, their president, in the Midland Hotel. The occasion marked also the twenty-first anniversary of the Association. Mr. John M. Macfarlane was in the chair. Mr. Matthews has been president of the Association no fewer than nine times, having been its first, as he is its twenty-first, occupant. He has also been president of the North-Western Federation of the Manchester branch of the Institute of Builders, a member of the National Board of Conciliation, and of the National Joint Industrial Council.

A novel course of lectures is to be given at University College, London, during the coming term by Mr. Martin S. Briggs, F.R.I.B.A. (Godwin Bursar, 1914), on "The Historical Development of Building Construction." This course constitutes the first attempt to trace the various elemental processes of building through the different ages. It is intended for those who already possess a knowledge of building construction and of the history of architectural development, but, whereas history and construction have hitherto been taught as separate subjects, the lecturer will prove their mutual interdependence from the days of the ancient civilisations down to modern times. Attention will be given to minor points of exceptional interest, in which the problems of the old builders may be compared with our own. The subjects of the ten lectures will be: (1) Brickwork, (2) Masonry, (3) Concrete and Marble, (4) Carpentry, (5) Joinery, (6) Ironwork, (7) Roofing, (8) Plasterwork, (9) Leadwork, (10) Glazing. They will be illustrated chiefly by means of blackboard sketches, lantern slides, and measured drawings lent by members of the Bartlett School of Architecture staff will also be used. The lectures will be given on Wednesday evenings in the Architectural Theatre at 6.15, beginning January 25. The fee for the course is 10s. 6d. to students of the College, to others £1 1s. Application for tickets of admission should be addressed to the Secretary, University College, London (Gower Street, W.C. 1).

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